WCES DEMO
ROC.BANK 1
PROM #5

```
:L

*/ROC.TITLE - LASTED [illegible].10.84
********************************

:PR#0

:L

*/ ROC.BANK1  LASTED 12.29.83.
* MAIN FILE FOR ROC N ROPE BANK1
* VERTICAL INTERVAL CODE
********************************
PAINT     =     $FD00
BEGORG    =     $E000
BEGOBJ    =     $8004
          LST   ON
          PUT   ROC.VCSDEF1
          PAG
          PUT   ROC.EQU
          PAG
********************************
* EQUATES TO BANK2 LABELS      *
********************************
          PUT   ROC.EQU2
                            ;
          ORG   BEGORG-4
          DA    BEGORG      ;START ADDR.
          DA    END         ;END ADDR.
                            ;
********************************
*    BANK SWITCH CODE-->       *
********************************
                            ;
* SWITCH TO BANK2->
*-----------------------
TOPSW
          LDA   $FFF9
          JMP   PAINT       ;GO PAINT CLIFFS.
* COME HERE FROM BANK2-->
*----------------------------
          NOP
          NOP
          NOP
          NOP
          JMP   BOTVI
          NOP
          NOP
          NOP
          NOP
          NOP
          PAG
********************************
*  POWERUP INITIALIZATION->    *
********************************
          PUT   ROC.INIT
          PAG
********************************
* BOTTOM VERTICAL INTERVAL     *
********************************
BOTVI
          LDA   #BOTTIM
          STA   TIME64
                            ;
          PUT   ROC.JOY
```

```
         PAG
         PUT   ROC.BOTVI
         PAG
*******************************
*     TOP VERTICAL INTERVAL   *
*******************************
         PUT   ROC.TOPVI
         PAG
*******************************
*  SET  UP  DISPLAY  RAM->    *
*******************************
         PUT   ROC.SETUP
         PAG
*******************************
*  PAINT SCORE/TITLE          *
*******************************
         PUT   ROC.TITLE
         PAG
*******************************
*  SOUND TABLES               *
*******************************
         PUT   ROC.SONGS
         PAG
         PUT   ROC.SUBS1
         PAG
         OBJ   BEGOBJ+$B00
         ORG   BEGORG+$B00
         PUT   ROC.CLIFFHIT
         PAG
*******************************
*  BIRD + MISC IMAGES-->      *
*******************************
         OBJ   BEGOBJ+$C00
         ORG   BEGORG+$C00
         PUT   ROC.BIRD1
         PAG
         OBJ   BEGOBJ+$D00
         ORG   BEGORG+$D00
*******************************
*  IMAGE & ADDRESS TABLES     *
*******************************
         PUT   ROC.SCORE  RTN
         PAG
         PUT   ROC.ADDRESS TABLES
         PAG
*******************************
*  LETTER IMAGE TABLES-->     *
*******************************
         OBJ   BEGOBJ+$E00
         ORG   BEGORG+$E00
         PUT   ROC.LETTERS
         PAG
*******************************
*     DIGIT IMAGE TABLES->    *
*******************************
         OBJ   BEGOBJ+$ED0
         ORG   BEGORG+$ED0
         PUT   POSITION.TABLE
         PAG
         PUT   DIGITS2
         PAG

*******************************
*        RESET VECTOR         *
*******************************
         OBJ   BEGOBJ+$FFC
```

```
                    ORG   BEGORG+$FFC
                    DA    PWRUP
         END

:ASM
         */ ROC.BANK1  LASTED 12.29.83.
         * MAIN FILE FOR ROC N ROPE BANK1
         * VERTICAL INTERVAL CODE
         ******************************
         PAINT     =    $FD00
         BEGORG    =    $E000
         BEGOBJ    =    $8004
                   PUT  ROC.VCSDEF1
         *ROC.VCSDEF1  LASTED 12.20.83
         *ATARI VCS VIDEO REGS + 6532 RIOT
         *******************************
         ATSYNC    =    $00
         ATBLNK    =    $01
         ATWAIT    =    $02
         *ATHORC = $03
         ATACTL    =    $04
         ATBCTL    =    $05
         ATACOL    =    $06
         ATBCOL    =    $07
         *ATFCOL = $08
         ATSCOL    =    $09
         ATFCTL    =    $0A
         ATAORD    =    $0B
         ATBORD    =    $0C
         *ATFR0 = $0D
         *ATFR1 = $0E
         *ATFR2 = $0F
         ATSALA    =    $10
         ATSBLA    =    $11
         *ATMALA = $12
         *ATMBLA = $13
         *ATFMLA = $14
         ATAWAV    =    $15
         *ATBWAV = $16
         ATADIV    =    $17
         *ATBDIV = $18
         ATAVOL    =    $19
         *ATBVOL = $1A
         ATADAT    =    $1B
         ATBDAT    =    $1C
         *ATENMA = $1D
         *ATENMB = $1E
         *ATENFM = $1F
         ATSAIN    =    $20
         ATSBIN    =    $21
         *ATMAIN = $22
         *ATMBIN = $23
         *ATFMIN = $24
         ATASEL    =    $25
         ATBSEL    =    $26
         *ATFSEL = $27
         *ATMATK = $28
         *ATMBTK = $29
         ATMVIN    =    $2A
         ATREMV    =    $2B
         *ATRHIT = $2C
         *ATCMAS = $30
         *ATCMBS = $31
         *ATCSAF = $32
         *ATCSBF = $33
         *ATCMAF = $34
```

```
*ATCMAF = $34
*ATCMBF = $35
*ATCFF = $36
*ATCMS = $37
*ATPADA = $38
*ATPADB = $39
*ATPADC = $3A
*ATPADD = $3B
ATJBA     =    $3C
*ATJBB = $3D
JOYDAT    =    $280
*JOYBUP = $01
*JOYBDN = $02
*JOYBLT = $04
*JOYBRT = $08
JOYAUP    =    $10
JOYADN    =    $20
JOYALT    =    $40
JOYART    =    $80
*PADAPB = $04
*PADBPB = $08
*PADCPB = $40
*PADDPB = $80
*IOADIR = $281
SWITCH    =    $282
SWIRES    =    $01
SWISEL    =    $02
SWICOL    =    $08
*SWIADF = $40
*SWIBDF = $80
*IOBDIR = $283
TIMER     =    $284
*INTFLG = $285
*TIME1 = $294
*TIME8 = $295
TIME64    =    $296
*TIME1K = $297
```

```
        PUT  ROC.EQU
*/ROC N ROPE EQU-LASTED 12.21.83
                                        ;
********************************
*    GAME CONTROL RAM          *
********************************
GAME        =    $80            ;GAME NUM
PLAYER      =    $80            ;B7=PLAYER UP.
MODE        =    $81            ;GAME MODE.
ROUND1      =    $82            ;RND NUM PLAYER 1.
*ROUND2 = $83 ;RND NUM PLAYER 2.
TOGO        =    $84            ;B0-B3=TOGO PLAYER 1.
                                ;B4-B7=TOGO PLAYER 2.
FRAMEL      =    $85
FRAMEH      =    $86
BTIME       =    $87            ;BUTTON DOWN TIMER.
                                ;
********************************
*      SCORE  DATA             *
********************************
SCOR1L      =    $88            ;PLAYER 1 SCORE LO.
*SCOR2L = $89
SCOR1M      =    $8A            ;PLAYER 1 SCORE MED.
*SCOR2M = $8B
SCOR1H      =    $8C            ;PLAYER 1 SCORE HI.
*SCOR2H = $8D
                                ;
********************************
*   B O N U S   P O I N T S    *
********************************
BONUSL      =    $8E
BONUSH      =    $8F
                                ;
                                ;
********************************
*      SOUND  DATA             *
********************************
AIDX        =    $90
BIDX        =    $91
ADUR        =    $92
BDUR        =    $93
                                ;
********************************
*  E X P L O R E R  R A M      *
********************************
EXPLN       =    $94            ;V POS.
EXPPOS      =    $95            ;H POS.
EXPDAT      =    $96            ;DATA PTR.
EXPSTAT     =    $97            ;EXP STATUS.
                                ;GOING UP ROPE.
                                ;CLIMBING DOWN ROPE.
                                ;CLIMBING DOWN ICICLE.
                                ;DOING DEATH DANCE.
                                ;B7=0=FLASH LIGHT ON.
                                ;B4=1=FALLING.
                                ;B3= EXP DIRECTION.
                                ;B0-B2=TIME TO LV LITE ON.
********************************
*  D I N O / CAVEMAN  R A M (5)*
********************************
DINLN       =    $98            ;V POS.
DINPOS      =    $9D            ;H POS.
DINDAT      =    $A2            ;IMG PTR.
DINOST      =    $A7            ;DINO STATUS->
DINDIR      =    $A7            ;DIRECTION/SPD.
```

```
                                        ;B4-B5=DIR(UDLR).
                                        ;B3=ORD BIT.
                                        ;B0-B2=COUNTDOWN FOR
                                        ; STUNNED BY LIGHT.
                                        ;0=NOT STUNNED.
                                        ;
                                        ;
                                        ;
********************************
*  E G G / F E A T H E R   RAM *
********************************
EGGPOS   =     $B1              ;ON/OFF
                                ;B0-B3=RT SIDE BAND0-BAND3 EGGS
                                ;B4-B7=LFT SIDE BAND0-BAND3 EGGS.
PWRTIM   =     $B2              ;INVINCIBLE TIMER.
                                ;0=NOT INVINCIBLE.
                                ;
********************************
*  ELEVATOR/WATERFALL   RAM    *
********************************
ELEVST   =     $B3              ;ON/OFF
                                ;DIR (UP/DOWN)
                                ;V POS.
ELEVDAT  =     $B4              ;IMG PTR.
                                ;
********************************
*  R O P E   R A M             *
********************************
ROPELN   =     $B5              ;TOP LN.
                                ;B0-B3 = LN OFFSET/2.
                                ;B5-B7 = BAND.
ROPPOS   =     $B6              ;ROPE H POS.
                                ;
ROPEST   =     $B7              ;ROPE STATUS:
                                ;B6-B7=MODE:
                                ;$00=OFF
                                ;$C0=ANK (PLANTED)
                                ;$80=PULL (RETRACTING)
                                ;$40=PUSH (SHOOTING)
                                ;B3=ORD VAL.
                                ;B0=1=EXP IS ON ROPE.
********************************
*    PTERODACTYL  RAM          *
********************************
BIRDPOS  =     $B8              ;HPOS.
TERIST   =     $B9              ;STATUS.
ROCKLN   =     $BA              ;VPOS.
ROCKPOS  =     $BB              ;HPOS.
                                ;
```

```
********************************
*   D I S P L A Y   R A M      *
********************************
                                ;SA ORD (B3).
                                ;ORD+AINC ARE PACKED.
AORD      =     $BC             ;(5)
                                ;SA INCR (B4-B7)
SAIN      =     $BC             ;(5)
ACOL      =     $C1             ;(5)
                                ;
ADATHI    =     $C6             ;(5)
ADATLO    =     $CB             ;(5)
ADAT      =     $CF             ;(ADAT)=$CF+$D0.
                                ;
BDATLO    =     $D1             ;(5)
BDAT      =     $D5             ;(BDAT)=$D5+$D6.
                                ;
BCOLLO    =     $D7             ;(5)
BCOL      =     $DB             ;(BCOL)=$DB+$DC
                                ;
FMLO      =     $DD             ;(5)
FM        =     $E1             ;(FM)=$E1+$E2.
                                ;
MALO      =     $E3             ;(5)
MA        =     $E7             ;(MA)=$E7+$E8.
                                ;
MBLO      =     $E9             ;(5)
MB        =     $ED             ;(MB)=$ED+$EE.
                                ;
********************************
*  SA POS RTN ADDRESSES        *
********************************
SAPOS4    =     $F6             ;BAND 4.(TOP).
SAPOS3    =     $F8             ;     3.
SAPOS2    =     $FA             ;     2.
SAPOS1    =     $FC             ;     1.
SAPOS0    =     $FE             ;     0.
                                ;
********************************
*    T E M P    R A M          *
********************************
                                ;
TEMP11    =     $E8
TEMP12    =     $E9
TEMP13    =     $EA
TEMP4     =     $F4
TEMP5     =     $F5
TEMP6     =     $F6
TEMP7     =     $F7
TEMP8     =     $F8
                                ;
BAND      =     $EF
TEMP1     =     $EF
TEMP2     =     $F0
TEMP3     =     $F1
                                ;
PD100K    =     $F2
PD10K     =     $F4
PD1K      =     $F6
PD100     =     $F8
PD10      =     $FA
PD1       =     $FC
                                ;
```

```
*********************************
*     E Q U A T E S             *
*********************************
                                    ;
* TIMER VALUES *
****************
TOPTIM    =     $A8
BOTTIM    =     $94
                                    ;
* COLORS *
**********
BLACK     =     0
WHITE     =     $0E
RED       =     $26
YELLOW    =     $1A
GREEN     =     $D4
ORANGE    =     $28
LBLUE     =     $94
BLUE      =     $9A
PURPLE    =     $68
BROWN     =     $F6
LBROWN    =     $18
TAN       =     $FC
                                    ;
* GAME MODES *
**************
PLAY      =     $01
TITLEM    =     $02
GOVER     =     $03
SELECT    =     $04
                                    ;
RESUM     =     $05
```

```
********************************
* EQUATES TO BANK2 LABELS      *
********************************
            PUT   ROC.EQU2
*/ ROC.EQU2  LASTED:12.19.83
                              ;
********************************
* EQUATES FOR BANK2 LABELS     *
********************************
                              ;COLOR TBLS->
WHITETB   =     $F600
YELOTB    =     $F62D
REDTBL    =     $F649
EXPCOL    =     $F61C
                              ;MISC IMGS->
NULLX     =     $F97A
NULLM     =     $F6DC
EGG1      =     $F6D4
FLIGHT    =     $F99E
ROPE1     =     $F66D
ROPE2     =     $F665
MISC      =     $F600
                              ;EXP IMGS->
EXP1      =     $F900
EXP2      =     $F91B
EXP3      =     $F936
EXP4      =     $F969
EXP5      =     $F9D6
                              ;CAVEMAN IMGS->
CAVE1     =     $F800
CAVE2     =     $F800
CAVE3     =     $F81B
CAVE4     =     $F836
CAVE5     =     $F851
CAVE6     =     $F86C
CAVE7     =     $F851
CAVE8     =     $F887
CAVE9     =     $F8A2
CAVEX     =     $F8BD         ;NULL D/C IMG
CAVEZ     =     F8CE          ;DINO IMGS->
DINO1     =     $F700
DINO2     =     $F71B
DINO3     =     $F736
DINO4     =     $F751
DINO5     =     $F76C
DINO6     =     $F787
DINO7     =     $F76C
DINO8     =     $F7A2
DINO9     =     $F7BE
DINOX     =     $F7D9
                              ;ELEVATOR IMGS->
ELEV1     =     $F6AA
ELEV2     =     $F6AC
ELEV3     =     $F6AE
ELEV4     =     $F6B0
ELEV5     =     $F6B2
ELEV6     =     $F6B4
ELEV7     =     $F6B6
ELEV8     =     $F6B8
                              ;WATERFALL IMGS->
WATER1    =     $F6B0
WATER2    =     $F6B2
WATER3    =     $F6B4
WATER4    =     $F6B6
WATER5    =     $F6B0
```

```
                 WATER6   =    $F6B2
                 WATER7   =    $F6B4
                 WATER8   =    $F6B6
                                          ;
                                          ;POS RTNS->
                 LAT1     =    $FF10
                 LAT2     =    $FF31
                 LAT3     =    $FF38
                 LAT4     =    $FF59
                 LAT5     =    $FF67
                 LAT6     =    $FF87
                 LAT7     =    $FFA2
                 LAT8     =    $FFBB
                                          ;
                                          ;
                          ORG  BEGORG-4
DFFC: 00 E0               DA   BEGORG     ;START ADDR.
DFFE: FE EF               DA   END        ;END ADDR.
                                          ;
                 ********************************
                 *   BANK SWITCH CODE-->        *
                 ********************************
                                          ;
                 * SWITCH TO BANK2->
                 *--------------------------
                 TOPSW
E000: AD F9 FF            LDA  $FFF9
E003: 4C 00 FD            JMP  PAINT      ;GO PAINT CLIFFS.
                 * COME HERE FROM BANK2-->
                 *------------------------------
E006: EA                  NOP
E007: EA                  NOP
E008: EA                  NOP
E009: EA                  NOP
E00A: 4C 24 E0            JMP  BOTVI
E00D: EA                  NOP
E00E: EA                  NOP
E00F: EA                  NOP
E010: EA                  NOP
E011: EA                  NOP
```

```
                 ********************************
                 *  POWERUP INITIALIZATION->    *
                 ********************************
                          PUT  ROC.INIT
                 */ROC N'ROPE INIT  LASTED:12/22/83.
                 PWRUP
E012: 78                  SEI
E013: D8                  CLD
E014: A2 00               LDX  #0
E016: 8A                  TXA
E017: 95 00      CLRAM    STA  0,X
E019: 9A                  TXS
E01A: E8                  INX
E01B: D0 FA               BNE  CLRAM
                 *
                                           ;ROUND=0
E01D: 20 E0 E8            JSR  IGAME       ;INIT GAME/RND RELATED RAM.
E020: A9 02               LDA  #TITLEM
E022: 85 81               STA  MODE
                                           ;
```

```
                **********************************
                * BOTTOM VERTICAL INTERVAL       *
                **********************************
                BOTVI
E024: A9 94                 LDA  #BOTTIM
E026: 8D 96 02              STA  TIME64
                                                ;
                            PUT  ROC.JOY
                */ROC.JOY  LASTED:  12.29.83
                **********************************
                *   JOYSTICK  READ RTN           *
                **********************************
                * JOYDAT MASKS (LO NIBBLE)       *
                *                                *
                *  NOJOY = 0                     *
                *     U  = 1                     *
                *     D  = 2                     *
                *  ILLEG = 3                     *
                *     L  = 4                     *
                *    UL  = 5                     *
                *    DL  = 6                     *
                *  ILLEG = 7                     *
                *     R  = 8                     *
                *    UR  = 9                     *
                *    DR  = 10 (A)                *
                **********************************
                                                ;
E029: E6 85                 INC  FRAMEL
E02B: D0 02                 BNE  FRNE
E02D: E6 86                 INC  FRAMEH
                FRNE
E02F: A5 81                 LDA  MODE
E031: C9 01                 CMP  #PLAY          ;PLAY MODE?
E033: D0 45                 BNE  NJOY           ;J N.
                                                ;
E035: A5 97                 LDA  EXPSTAT
E037: 29 10                 AND  #$10           ;EXP FALLING?
E039: D0 3F                 BNE  NJOY           ;JY.
                                                ;
                JOYRD
                                                ;
E03B: A5 85                 LDA  FRAMEL
E03D: 29 01                 AND  #1
E03F: D0 39                 BNE  NJOY
                                                ;
E041: AD 80 02              LDA  JOYDAT
E044: 49 FF                 EOR  #$FF
E046: 85 EF                 STA  TEMP1
E048: 4C 7D E0              JMP  READIT
                                                ;
E04B: A6 80                 LDX  PLAYER
E04D: 30 04                 BMI  PLAY2
                                                ;SHIFT DATA FOR PLAYER1->
E04F: 4A                    LSR
E050: 4A                    LSR
E051: 4A                    LSR
E052: 4A                    LSR
                PLAY2
E053: 29 0F                 AND  #$0F           ;KP LO NIB ONLY.
E055: 85 EF                 STA  TEMP1          ;SV JOY.
                                                ;
E057: A8                    TAY
E058: BE 64 E0              LDX  HOFF,Y
E05B: B9 6F E0              LDA  VOFF,Y
E05E: 20 56 E9              JSR  MOVEXP
```

```
E061: 4C 2D E1          JMP  JOY99
               HOFF
E064: 00                DFB  0
E065: 00                DFB  0         ;UP
E066: 00                DFB  0         ;DOWN
E067: 00                DFB  0         ;ILLEG
E068: FF                DFB  $FF       ;LEFT
E069: FE                DFB  $FE       ;UL(U1L2)
E06A: FE                DFB  $FE       ;DL(D1L2)
E06B: 00                DFB  $0        ;ILLEG
E06C: 01                DFB  1         ;RIGHT
E06D: 02                DFB  2         ;UR(U1R2)
E06E: 02                DFB  2         ;DR(D1R2)
               VOFF
E06F: 00                DFB  0         ;NO JOY
E070: 01                DFB  1         ;U
E071: FF                DFB  $FF       ;D
E072: 00                DFB  0         ;ILLEG
E073: 00                DFB  0         ;L
E074: 01                DFB  1         ;UL
E075: FF                DFB  $FF       ;DL
E076: 00                DFB  0         ;ILLEG
E077: 00                DFB  0         ;R
E078: 01                DFB  1         ;UR
E079: FF                DFB  $FF       ;DR
                                       ;
               NJOY
E07A: 4C 2D E1          JMP  JOY99
                                       ;
               READIT
E07D: A9 10             LDA  #$10      JOYAUP.
E07F: 25 EF             AND  TEMP1
E081: F0 21             BEQ  NUP       ;J NOT UP.
E083: 20 00 EB          JSR  ONPLAT    ;ON PLATFORM?
E086: D0 09             BNE  MVUP      ;J N.
E088: A5 85             LDA  FRAMEL
E08A: 29 1F             AND  #$1F
E08C: F0 03             BEQ  MVUP
E08E: 4C 2D E1          JMP  JOY99     ;DELAY ON CLIFF.
               MVUP
                                       ;
               *******************************
               * CLIMBING UP ROPE/ICICLE???  *
               *******************************
E091: A5 3C             LDA  ATJBA
E093: 10 E5             BPL  NJOY      ;J BUT DOWN TOO.
E095: A6 94             LDX  EXPLN
E097: E0 70             CPX  #112
E099: B0 DF             BCS  NJOY      ;J AT TOP.
E09B: E6 94             INC  EXPLN     ;MOVE EXP UP.
E09D: A9 03             LDA  #3
E09F: 85 96             STA  EXPDAT    ;PATCH.
E0A1: 4C 2D E1          JMP  JOY99
               NUP
               *******************************
               * CLIMBING DOWN ROPE/ICICLE?? *
               *******************************
E0A4: A9 20             LDA  #JOYADN
E0A6: 25 EF             AND  TEMP1
E0A8: F0 1B             BEQ  NDOWN     ;J NOT DOWN.
E0AA: 20 00 EB          JSR  ONPLAT
E0AD: D0 09             BNE  MVDOWN    ;J NOT ON PLATFORM.
E0AF: A5 85             LDA  FRAMEL
E0B1: 29 1F             AND  #$1F
E0B3: F0 03             BEQ  MVDOWN
E0B5: 4C 2D E1          JMP  JOY99
```

```
                   MVDOWN
                                           ;
E0B8: A6 94                 LDX   EXPLN
E0BA: F0 BE                 BEQ   NJOY     ;J AT BOTTOM.
E0BC: C6 94                 DEC   EXPLN    ;MOVE DOWN 1 LINE.
E0BE: A9 03                 LDA   #3
E0C0: 85 96                 STA   EXPDAT   ;PATCH
E0C2: 4C 2D E1              JMP   JOY99
                   NDOWN
E0C5: 20 00 EB              JSR   ONPLAT
E0C8: D0 63                 BNE   JOY99    ;J NOT ON PLATFORM.
                   *******************************
                   *  WALKING ON A PLATFORM???    *
                   *******************************
E0CA: A9 80                 LDA   #JOYART
E0CC: 25 EF                 AND   TEMP1
E0CE: F0 11                 BEQ   NRITE    ;J NOT RIGHT.
                                           ;
E0D0: A9 F7                 LDA   #$F7
E0D2: 25 97                 AND   EXPSTAT
E0D4: 85 97                 STA   EXPSTAT  ;FOR ORD.
E0D6: A6 95                 LDX   EXPPOS
E0D8: E0 7F                 CPX   #127
E0DA: B0 51                 BCS   JOY99
E0DC: E6 95                 INC   EXPPOS   ;MOVE EXP RIGHT.
E0DE: 4C F5 E0              JMP   JOY77
                   NRITE
E0E1: A9 40                 LDA   #JOYALT
E0E3: 25 EF                 AND   TEMP1
E0E5: F0 46                 BEQ   JOY99
                                           ;MV LEFT->
E0E7: A9 08                 LDA   #8
E0E9: 05 97                 ORA   EXPSTAT
E0EB: 85 97                 STA   EXPSTAT  ;FOR ORD.
                                           ;
E0ED: A6 95                 LDX   EXPPOS
E0EF: E0 06                 CPX   #6
E0F1: 90 3A                 BCC   JOY99
E0F3: C6 95                 DEC   EXPPOS   ;MOVE EXP LEFT.
                   JOY77
E0F5: A5 B7                 LDA   ROPEST
E0F7: 29 C0                 AND   #$C0
E0F9: C9 C0                 CMP   #$C0     ;ANCHORED?
E0FB: F0 04                 BEQ   JOY80
E0FD: A9 00                 LDA   #0
E0FF: 85 B7                 STA   ROPEST   ;ROPE OFF.
                   JOY80
                                           ;WALKED OFF EDGE???
E101: A5 94                 LDA   EXPLN
E103: A2 00                 LDX   #0
                   GBAND
E105: 38                    SEC
E106: E9 1C                 SBC   #28
E108: 30 04                 BMI   HBAND
E10A: E8                    INX
E10B: 4C 05 E1              JMP   GBAND
                   HBAND
E10E: E0 00                 CPX   #0
E110: F0 18                 BEQ   JOY88    ;SKIP ON LOWEST LVL.
E112: E0 05                 CPX   #5
E114: B0 14                 BCS   JOY88
                   *******************************
                   * TEST IF EXP ON CLIFF-->>     *
                   *******************************
E116: A5 95                 LDA   EXPPOS
E118: 18                    CLC
```

```
E119: 69 03              ADC  #3
                CLTEST
E11B: 20 1F EB           JSR  CLIFFHIT
E11E: B0 0A              BCS  JOY88      ;J N.
                                         ;
                *******************************
                *  EXPLORER IS FALLING OFF    *
                *    EDGE OF CLIFF--->>>      *
                *******************************
E120: A9 10              LDA  #$10
E122: 05 97              ORA  EXPSTAT
E124: 85 97              STA  EXPSTAT    ;START FALLING.
E126: A9 03              LDA  #3
E128: 85 96              STA  EXPDAT
                JOY88
E12A: 20 3A E9           JSR  ANIMEXP
                JOY99
```

```
                    ********************************
                    * JOY BUTTON READ-->           *
                    ********************************
                    BUTTON
E12D: A5 3C                 LDA  ATJBA        ;RD JOY BUTTON A.
E12F: 10 16                 BPL  BUTDN
                    ********************************
                    *   BUTTON  IS  UP--->         *
                    ********************************
E131: A9 00                 LDA  #0
E133: 85 84                 STA  TOGO         ;PATCH TO SHOW BUT IS UP.
                                              ;
E135: A5 B7                 LDA  ROPEST
E137: 29 C0                 AND  #$C0
E139: C9 40                 CMP  #$40         ;SHOOTING?
E13B: D0 79                 BNE  NOBUT        ;J N.
                                              ;START RETRACT->
E13D: A5 B7                 LDA  ROPEST
E13F: 29 3F                 AND  #$3F         ;RMV MODE.
E141: 09 80                 ORA  #$80
E143: 85 B7                 STA  ROPEST
E145: D0 6F                 BNE  NOBUT
                                              ;
                    ********************************
                    *   BUTTON  IS  DOWN-->        *
                    ********************************
                    BUTDN
E147: A5 97                 LDA  EXPSTAT
E149: 10 11                 BPL  BD5          ;J LITE ALREADY ON.
E14B: AD 80 02              LDA  JOYDAT
E14E: 49 FF                 EOR  #$FF
E150: 29 10                 AND  #$10         ;JOY UP?
E152: D0 08                 BNE  BD5          ;J Y.
                                              ;
E154: A5 97                 LDA  EXPSTAT
E156: 29 7F                 AND  #$7F         ;LITE ON
E158: 09 07                 ORA  #$07         ;COUNT.
E15A: 85 97                 STA  EXPSTAT
                                              ;PLAY MUSIC.
                    *LDA #0
                    *STA ADUR
                    *LDA #FVBULL-FVTBL
                    *STA AIDX
                    ********************************
                    * SHOULD WE START SHOOT ROPE? *
                    ********************************
                    BD5
E15C: A5 B7                 LDA  ROPEST
E15E: 29 C0                 AND  #$C0
E160: F0 08                 BEQ  BD55         ;J OFF.
                                              ;
E162: C9 C0                 CMP  #$C0         ;PLANTED?
E164: D0 50                 BNE  NOBUT        ;J N.
                                              ;
E166: A5 84                 LDA  TOGO         ;PATCH
E168: D0 4C                 BNE  NOBUT        ;J BUT WAS NOT RELEASED.
                                              ;
                                              ;
                    BD55
E16A: 20 00 EB              JSR  ONPLAT
E16D: D0 43                 BNE  NOBUTD       ;ONLY SHOOT IF EXP ON PLATFORM.
                                              ;
E16F: AD 80 02              LDA  JOYDAT
E172: 49 FF                 EOR  #$FF
E174: 29 10                 AND  #$10         ;JOY UP?
```

```
E176: F0 3A                 BEQ   NOBUTD      ;J N.
                                              ;
                  ********************************
                  * WHICH WAY IS EXP FACING???   *
                  ********************************
E178: A5 97                 LDA   EXPSTAT
E17A: 29 08                 AND   #8
E17C: D0 0B                 BNE   XFACEL      ;J FACING LEFT.
                  ********************************
                  * SHOOT ROPE FROM RT TO LEFT-> *
                  ********************************
E17E: A5 95                 LDA   EXPPOS
E180: 18                    CLC
E181: 69 23                 ADC   #35
E183: 10 0D                 BPL   SVRPOS      ;J GOOD SHOT.
                                              ;
E185: A9 7F                 LDA   #127
E187: F0 09                 BEQ   SVRPOS      ;SET UP BAD POS.
                                              ;
                  ********************************
                  * SHOOT ROPE FROM LEFT TO RT-> *
                  ********************************
                  XFACEL
E189: A5 95                 LDA   EXPPOS
E18B: 38                    SEC
E18C: E9 23                 SBC   #35
E18E: 10 02                 BPL   SVRPOS      ;J GOOD POS.
E190: A9 00                 LDA   #0          ;BADPOS.
                  SVRPOS
E192: 85 B6                 STA   ROPPOS
                                              ;
                  ********************************
                  * SET "ROPE EXTENDING" FLAG->  *
                  ********************************
                  BD6
E194: A5 97                 LDA   EXPSTAT
E196: 29 08                 AND   #8
E198: 09 40                 ORA   #$40        ;SHOOT MODE.
E19A: 85 B7                 STA   ROPEST
                                              ;
                  ********************************
                  * INIT ROPE LINE NUM-->        *
                  ********************************
E19C: A5 94                 LDA   EXPLN
E19E: A0 00                 LDY   #0
                  RMDR
E1A0: 38                    SEC
E1A1: E9 1C                 SBC   #28
E1A3: 30 03                 BMI   RMDR5
E1A5: C8                    INY
E1A6: 10 F8                 BPL   RMDR
                  RMDR5
E1A8: 98                    TYA
E1A9: 0A                    ASL
E1AA: 0A                    ASL
E1AB: 0A                    ASL
E1AC: 0A                    ASL
E1AD: 0A                    ASL
E1AE: 09 0D                 ORA   #13
E1B0: 85 B5                 STA   ROPELN      ;SV ROPE BAND/LN=13.
                  NOBUTD
E1B2: A9 FF                 LDA   #$FF
E1B4: 85 84                 STA   TOGO        ;SHOW BUT WAS DOWN PATCH****.
                  NOBUT
                  ********************************
                  * SWITCH READING--->           *
                  ********************************
```

```
                    *  SWITCH READING-->                *
                    *********************************
                    SWIT
E1B6: AD 82 02              LDA  SWITCH      ;RD SWITCHES.
E1B9: 49 FF                 EOR  #$FF
E1BB: 29 01                 AND  #SWIRES     ;RESET?
E1BD: F0 03                 BEQ  NORES       ;JP NO.
E1BF: 4C 12 E0              JMP  PWRUP       ;REINIT SCREEN PARAMS.
                    NORES
E1C2: A5 85                 LDA  FRAMEL
E1C4: 29 1F                 AND  #$1F
E1C6: D0 28                 BNE  NOSEL
                                             ;
E1C8: AD 82 02              LDA  SWITCH
E1CB: 49 FF                 EOR  #$FF
E1CD: 29 02                 AND  #SWISEL     ;JP SELECT NOT DOWN.
E1CF: F0 1F                 BEQ  NOSEL
                                             ;
                    *  SHOW  "STAGE X" SCREEN->
                    *-----------------------------
E1D1: A9 05                 LDA  #RESUM      ;SELECT
E1D3: C5 81                 CMP  MODE
E1D5: F0 19                 BEQ  NOSEL       ;J ALREADY IN RESUM MODE.
                                             ;
                    *  UP ROUND NUM (SCREEN #)-->
                    *-------------------------------
E1D7: A6 82                 LDX  ROUND1      ;GAME
E1D9: E0 02                 CPX  #2
E1DB: D0 02                 BNE  NUGAM
E1DD: A2 FF                 LDX  #$FF
                    NUGAM
E1DF: E8                    INX
E1E0: 86 82                 STX  ROUND1      ;GAME
                                             ;
E1E2: 20 F4 E8              JSR  IROUND
                                             ;PLAY SCREEN 1 SONG->
E1E5: A2 FF                 LDX  #$FF
E1E7: 86 92                 STX  ADUR
E1E9: 86 93                 STX  BDUR
E1EB: E8                    INX
E1EC: 86 19                 STX  ATAVOL
E1EE: 86 1A                 STX  ATAVOL+1
                                             ;
                    NOSEL
                                             ;
E1F0: A5 81                 LDA  MODE
E1F2: C9 05                 CMP  #RESUM
E1F4: D0 08                 BNE  NOSEL2
                                             ;
E1F6: A5 85                 LDA  FRAMEL
E1F8: D0 04                 BNE  NOSEL2
                                             ;
                    * START PLAY MODE-->
                    *-----------------------------
E1FA: A9 01                 LDA  #PLAY
E1FC: 85 81                 STA  MODE
                    NOSEL2
                                             ;
                    * TIME TO CHANGE SCREENS FROM
                    *  TITLE  TO  STAGE #???
                    *----------------------------
E1FE: A9 02                 LDA  #TITLEM
E200: C5 81                 CMP  MODE
E202: D0 10                 BNE  NOTTL
                                             ;
E204: A5 93                 LDA  BDUR        ;SONG ON?
E206: 10 0C                 BPL  NOTTL
```

```
                                                  ;
E208: A5 92              LDA  ADUR
E20A: 10 08              BPL  NOTTL         ;J Y.
                                                  ;
              *  START 'STAGE X" SCREEN-->
              *-------------------------------------
E20C: A9 05              LDA  #RESUM
E20E: 85 81              STA  MODE
                                                  ;
E210: A9 60              LDA  #$60
E212: 85 85              STA  FRAMEL        ;2 SEC.
              NOTTL
                                                  ;
              * KEEP PLAYING SONG DURING PLAY MODE-->
              *------------------------------------------------
E214: A5 81              LDA  MODE
E216: C9 01              CMP  #PLAY
E218: D0 12              BNE  NOSONG
                                                  ;
E21A: A5 92              LDA  ADUR
E21C: 10 0E              BPL  NOSONG
                                                  ;
E21E: A5 86              LDA  FRAMEH
E220: 29 04              AND  #4
E222: D0 08              BNE  NOSONG
                                                  ;
E224: A9 00              LDA  #0
E226: 85 92              STA  ADUR
E228: A9 29              LDA  #WDSONG2A-WDTBL
E22A: 85 90              STA  AIDX
              NOSONG
```

```
                            PUT  ROC.BOTVI
                   */ROC N'ROPE BOTVI LASTED:12.11.83
                   ********************************
                   *  MOVE DINOS--->              *
                   ********************************
E22C: A5 81                 LDA  MODE
E22E: C9 01                 CMP  #PLAY
E230: F0 03                 BEQ  MOVE1
E232: 4C AF E2              JMP  MOV99
                                                ;
                   MOVE1
E235: 18                    CLC
E236: 69 01                 ADC  #1
E238: A5 85                 LDA  FRAMEL
E23A: 29 03                 AND  #$03
E23C: D0 71                 BNE  MOV99
                                                ;
E23E: A2 04                 LDX  #4
                   MOVEM
E240: BD E4 E3              LDA  DPAUSE,X
E243: 25 85                 AND  FRAMEL
E245: D0 0A                 BNE  MV1
E247: BD E9 E3              LDA  DPAUSEH,X
E24A: 25 86                 AND  FRAMEH
E24C: D0 03                 BNE  MV1
E24E: 4C 99 E2              JMP  NEXTMV         ;SKIP HIM.
                   MV1
E251: B5 A7                 LDA  DINDIR,X       ;GET DINO DIR.
E253: 29 07                 AND  #7             ;STUNNED BY LITE??
E255: D0 42                 BNE  NEXTMV         ;J Y.
                                                ;
E257: B5 A7                 LDA  DINDIR,X
E259: 29 08                 AND  #$08
E25B: D0 25                 BNE  DINLTR
                                                ;MOV RTL->
E25D: B5 9D                 LDA  DINPOS,X
E25F: C9 09                 CMP  #9
E261: B0 09                 BCS  MOVRT
                                                ;AT EDGE->
E263: A5 85                 LDA  FRAMEL
E265: 29 3F                 AND  #$3F
E267: D0 30                 BNE  NEXTMV         ;PAUSE AT EDGE.
E269: 4C 9E E2              JMP  CHGDIR
                   MOVRT
E26C: B5 9D                 LDA  DINPOS,X
E26E: 18                    CLC
E26F: 69 02                 ADC  #2
E271: 20 1F EB              JSR  CLIFFHIT       ;AT EDGE?
E274: B0 05                 BCS  MOVRTL         ;J N.
                                                ;
E276: F6 9D                 INC  DINPOS,X
E278: 4C 9E E2              JMP  CHGDIR
                   MOVRTL
E27B: D6 9D                 DEC  DINPOS,X       ;MV LEFT.
E27D: CA                    DEX
E27E: 10 C0                 BPL  MOVEM
E280: 30 2D                 BMI  MOV99
                                                ;
                   DINLTR
E282: B5 9D                 LDA  DINPOS,X
E284: C9 7A                 CMP  #122
E286: B0 16                 BCS  CHGDIR         ;J AT RIGHT EDGE.
                                                ;
E288: B5 9D                 LDA  DINPOS,X
```

```
E28B: 69 04                 ADC  #4          ;ADD DINO WIDTH.
E28D: 20 1F EB              JSR  CLIFFHIT    ;AT EDGE?
E290: B0 05                 BCS  MOVLTR      ;J N.
                                             ;
E292: D6 9D                 DEC  DINPOS,X
E294: 4C 9E E2              JMP  CHGDIR
                                             ;
                   MOVLTR
E297: F6 9D                 INC  DINPOS,X    ;MV RIGHT.
                   NEXTMV
E299: CA                    DEX
E29A: 10 A4                 BPL  MOVEM
E29C: 30 11                 BMI  MOV99
                   ********************************
                   * CHANGE DIRECTION OF DINO-->  *
                   ********************************
                   CHGDIR
E29E: B5 A7                 LDA  DINDIR,X
E2A0: 49 08                 EOR  #$08        ;FLIP DIR.
E2A2: 85 EF                 STA  TEMP1
E2A4: B5 A7                 LDA  DINDIR,X
E2A6: 29 F7                 AND  #$F7
E2A8: 05 EF                 ORA  TEMP1
E2AA: 95 A7                 STA  DINDIR,X
E2AC: CA                    DEX
E2AD: 10 91                 BPL  MOVEM
                   MOV99
                                             ;
```

```
                 ******************************
                 *  ANIMATE DINOS--->         *
                 ******************************
E2AF: A5 85                  LDA  FRAMEL
E2B1: 29 07                  AND  #$07
E2B3: D0 1C                  BNE  ANIM99

E2B5: A2 04                  LDX  #4
                 ANIM1
E2B7: B5 A2                  LDA  DINDAT,X
E2B9: 29 03                  AND  #3         ;GET ANIM BITS.
E2BB: D0 04                  BNE  ANIM2
                                             ;
E2BD: A9 03                  LDA  #3
E2BF: D0 03                  BNE  ANIM3
                 ANIM2
E2C1: 38                     SEC
E2C2: E9 01                  SBC  #1
                 ANIM3
E2C4: 85 EF                  STA  TEMP1
E2C6: B5 A2                  LDA  DINDAT,X
E2C8: 29 FC                  AND  #$FF-3
E2CA: 05 EF                  ORA  TEMP1
E2CC: 95 A2                  STA  DINDAT,X
                                             ;
E2CE: CA                     DEX
E2CF: 10 E6                  BPL  ANIM1
                                             ;
                 ANIM99
                 ENDIT
E2D1: AD 84 02               LDA  TIMER
E2D4: 30 FB                  BMI  ENDIT
                                             ;
```

```
                    *******************************
                    *    TOP VERTICAL INTERVAL    *
                    *******************************
                              PUT   ROC.TOPVI
                    */ROC.TOPVI - LAST EDIT:12.29.83
                    *******************************
                    *      VERTICAL  RETRACE      *
                    *******************************
                    VINT
E2D6: A9 A8                   LDA   #TOPTIM
E2D8: 8D 96 02                STA   TIME64
                                                ;
E2DB: 85 02                   STA   ATWAIT      ;VINT WAIT #1.
E2DD: A9 02                   LDA   #$02        ;RESET JOY BUTTONS.
E2DF: 85 02                   STA   ATWAIT      ;VINT WAIT #2.
E2E1: 85 01                   STA   ATBLNK      ;TURN GUN OFF.
E2E3: 85 02                   STA   ATWAIT      ;VINT WAIT #3.
E2E5: 85 02                   STA   ATWAIT      ;VINT WAIT #4.
E2E7: 85 02                   STA   ATWAIT      ;VINT WAIT #5.
E2E9: 85 00                   STA   ATSYNC      ;BRING GUN HOME.
E2EB: 85 02                   STA   ATWAIT      ;VINT WAIT #6.
                                                ;
                    * INVINCIBLE TIMER MONITOR->
                    *******************************
E2ED: A5 85                   LDA   FRAMEL
E2EF: 29 0F                   AND   #$0F
E2F1: D0 06                   BNE   PT99
E2F3: A5 B2                   LDA   PWRTIM
E2F5: F0 02                   BEQ   PT99        ;J NOT INVINCIBLE.
E2F7: C6 B2                   DEC   PWRTIM
                    PT99
E2F9: 85 02                   STA   ATWAIT      ;VINT WAIT #7.
E2FB: A9 00                   LDA   #0
E2FD: 85 02                   STA   ATWAIT      ;VINT WAIT #8.
E2FF: 85 00                   STA   ATSYNC
```

```
                    *******************************
                    * TOP VERT INTERVAL PROCESSING *
                    *******************************
                    *
E301: A9 00                  LDA  #0
E303: 85 09                  STA  ATSCOL

E305: 20 7E E7               JSR  SOUND

```

```
                  ******************************
                  *  FLASH DINO MONITOR-->      *
                  ******************************
E308: A5 97                 LDA  EXPSTAT      ;LITE ON?
E30A: 30 46                 BMI  NOTHIT       ;J N.
                                              ;ANY DINO ON SAME LN?
E30C: A2 04                 LDX  #4
E30E: A5 94                 LDA  EXPLN
                  WHOHIT
E310: D5 98                 CMP  DINLN,X
E312: F0 05                 BEQ  HAVWHO
E314: CA                    DEX
E315: 10 F9                 BPL  WHOHIT       ;TRY NXT GUY.
E317: 30 39                 BMI  NOTHIT       ;J NONE ON SAME LN.
                  HAVWHO
E319: B5 A7                 LDA  DINOST,X     ;ALREADY STUNNED?
E31B: 29 07                 AND  #7
E31D: D0 33                 BNE  NOTHIT       ;J Y.
                                              ;
E31F: A5 97                 LDA  EXPSTAT
E321: 29 08                 AND  #8           ;FACING RT?
E323: D0 1F                 BNE  FACEL        ;J N.
                                              ;EXP IS FACING RT->
E325: A5 95                 LDA  EXPPOS
E327: 18                    CLC
E328: 69 04                 ADC  #4           ;ADD START OF LITE OFFSET.
E32A: D5 9D                 CMP  DINPOS,X
E32C: B0 24                 BCS  NOTHIT       ;J DINO IS TO LEFT OF LITE.
E32E: 18                    CLC
E32F: 69 08                 ADC  #8           ;ADD LITE WIDTH.
E331: D5 9D                 CMP  DINPOS,X
E333: 90 1D                 BCC  NOTHIT       ;J DINO NOTHIT
                  HESHIT
                                              ;DINO'S HIT->
E335: B5 A7                 LDA  DINOST,X
E337: 09 07                 ORA  #7           ;STUN COUNTDOWN.
E339: 95 A7                 STA  DINOST,X
E33B: A9 04                 LDA  #4           ;STUNNED IMG.
E33D: 15 A2                 ORA  DINDAT,X
E33F: 95 A2                 STA  DINDAT,X
E341: 4C 52 E3              JMP  NOTHIT
                                              ;EXP FACING LEFT->
                  FACEL
E344: A5 95                 LDA  EXPPOS
E346: D5 9D                 CMP  DINPOS,X
E348: 90 08                 BCC  NOTHIT
                                              ;DINO IS TO LEFT OF EXP->
E34A: E9 0E                 SBC  #14          ;SUB LITE WIDTH+DINO WIDTH.
E34C: 30 E7                 BMI  HESHIT       ;J WRAP.
E34E: D5 9D                 CMP  DINPOS,X
E350: 90 E3                 BCC  HESHIT
                                              ;
                  NOTHIT
                                              ;
```

```
                    ********************************
                    *  DINO STUNNED MONITOR-->      *
                    ********************************
E352: A5 85                    LDA  FRAMEL
E354: 29 1F                    AND  #$1F
E356: D0 19                    BNE  STUN99      ;J NOT TIME TO CHK.
E358: A2 04                    LDX  #4
                    STUND
E35A: B5 A7                    LDA  DINOST,X
E35C: 29 07                    AND  #7          ;STUNNED?
E35E: F0 0E                    BEQ  NOSTUN      ;J N.
                                                ;
E360: D6 A7                    DEC  DINOST,X    ;DEC STUN COUNT.
E362: B5 A7                    LDA  DINOST,X
E364: 29 07                    AND  #7
E366: D0 06                    BNE  NOSTUN
                                                ;SET IMG BACK TO NORMAL->
E368: B5 A2                    LDA  DINDAT,X
E36A: 29 FB                    AND  #$FF-4
E36C: 95 A2                    STA  DINDAT,X
                    NOSTUN
E36E: CA                       DEX
E36F: 10 E9                    BPL  STUND
                    STUN99
                                                ;
```

```
                   ******************************
                   *  MANAGE FLASHLITE->        *
                   ******************************
E371: A5 85                  LDA  FRAMEL
E373: 29 03                  AND  #3
E375: D0 12                  BNE  LOFF
                                           ;
E377: A5 97                  LDA  EXPSTAT
E379: 30 0E                  BMI  LOFF
E37B: 29 07                  AND  #7       ;GET TIME LEFT ON BITS.
E37D: D0 08                  BNE  DECTIM
E37F: A9 80                  LDA  #$80
E381: 05 97                  ORA  EXPSTAT
E383: 85 97                  STA  EXPSTAT  ;LITE OFF.
E385: 30 02                  BMI  LOFF
                   DECTIM
E387: C6 97                  DEC  EXPSTAT  ;DEC TIMER.
                   LOFF
```

```
                   ********************************
                   * MONITOR FALLING EXPLORER->   *
                   ********************************
E389: A5 97                 LDA  EXPSTAT
E38B: 29 10                 AND  #$10         ;FALLING
E38D: F0 26                 BEQ  NFALL        ;J N.
                                              ;
E38F: A5 94                 LDA  EXPLN
E391: D0 16                 BNE  FALLIN       ;J NOT AT BOTTOM.
                                              ;HIT BOTTOM.
E393: A5 85                 LDA  FRAMEL
E395: D0 1E                 BNE  NFALL        ;SIT FOR AWHILE AT BOTTOM.
                   ********************************
                   *  PUT EXP BACK IN START POS   *
                   ********************************
E397: A9 80                 LDA  #$80
E399: 85 97                 STA  EXPSTAT
E39B: A9 0A                 LDA  #10
E39D: 85 95                 STA  EXPPOS
E39F: A9 03                 LDA  #3
E3A1: 85 96                 STA  EXPDAT       ;STAND UP IMG.
E3A3: A9 00                 LDA  #0
E3A5: 85 B7                 STA  ROPEST       ;ROPE OFF..
E3A7: F0 0C                 BEQ  NFALL
                                              ;
                   FALLIN
E3A9: C6 94                 DEC  EXPLN
E3AB: D0 08                 BNE  NFALL
                                              ;SITDOWN IMAGE->
E3AD: A9 04                 LDA  #4
E3AF: 85 96                 STA  EXPDAT
                                              ;
E3B1: A9 90                 LDA  #$90
E3B3: 85 85                 STA  FRAMEL       ;START 2 SEC SITDOWN DELAY.
                   NFALL
```

```
                        ********************************
                        *   ANIMATE  ELEVATOR          *
                        ********************************
E3B5: A6 82                      LDX   ROUND1
E3B7: F0 25                      BEQ   ELV99
E3B9: E0 02                      CPX   #2
E3BB: F0 16                      BEQ   ELV40         ;J WATERFALL.
                                                     ;
E3BD: BD E1 E3                   LDA   ELEVSPD,X
E3C0: 25 85                      AND   FRAMEL
E3C2: D0 1A                      BNE   ELV99
                                                     ;DECIDE UP/DOWN MVMT.
E3C4: A5 86                      LDA   FRAMEH
E3C6: 29 04                      AND   #4
E3C8: F0 09                      BEQ   ELV40         ;J TO MOVE ELEV DOWN.
                                                     ;MV ELEV UP->
E3CA: A6 B4                      LDX   ELEVDAT
E3CC: CA                         DEX
E3CD: 10 0D                      BPL   ELV80
E3CF: A2 07                      LDX   #7
E3D1: D0 09                      BNE   ELV80
                                                     ;
                        ELV40
E3D3: A6 B4                      LDX   ELEVDAT
E3D5: E8                         INX
E3D6: E0 08                      CPX   #8
E3D8: D0 02                      BNE   ELV80
E3DA: A2 00                      LDX   #0
                        ELV80
E3DC: 86 B4                      STX   ELEVDAT
                        ELV99
E3DE: 4C EE E3                   JMP   ROPEMON
                                                     ;
                        ELEVSPD
E3E1: 00 0F 00                   DFB   0,$0F,0
                        DPAUSE
E3E4: C0 90 E0
E3E7: 80 80                      DFB   $C0,$90,$E0,$80,$80
                        DPAUSEH
E3E9: 02 01 04
E3EC: 02 01                      DFB   $02,$01,$04,$02,$01
                                                     ;
```

only 4 D/C

```
                  ********************************
                  *   R O P E   M O N I T O R    *
                  ********************************
                  ROPEMON
E3EE: A5 B5                LDA  FRAMEL
E3F0: 29 03                AND  #3
E3F2: D0 44                BNE  RM99
                                           ;
E3F4: A5 B7                LDA  ROPEST
E3F6: 29 C0                AND  #$C0       ;KP MODE.
E3F8: F0 3E                BEQ  RM99       ;J OFF.
                                           ;
E3FA: C9 C0                CMP  #$C0       ;ANCHORED?
E3FC: F0 3A                BEQ  RM99       ;J Y.
                                           ;
E3FE: C9 40                CMP  #$40       ;SHOOTING?
E400: F0 10                BEQ  RM15       ;J Y.
                                           ;ELSE RETRACTING->
                  ********************************
                  *  ROPE IS  RETRACTING-->      *
                  ********************************
E402: E6 B5                INC  ROPELN
E404: A5 B5                LDA  ROPELN
E406: 29 0F                AND  #$0F       ;GET IMG OFFSET.
E408: C9 0D                CMP  #13        ;MINLEN?
E40A: D0 2C                BNE  RM99       ;J N.
                                           ;TURN ROPE OFF->
E40C: A9 00                LDA  #0
E40E: 85 B7                STA  ROPEST
E410: F0 26                BEQ  RM99
                                           ;
                  ********************************
                  *  ROPE IS EXTENDING--->       *
                  ********************************
                  RM15
E412: C6 B5                DEC  ROPELN     ;UP IMG PTR.
E414: A5 B5                LDA  ROPELN
E416: 29 0F                AND  #$0F       ;MAXLEN?
E418: D0 1E                BNE  RM99       ;J N.
                                           ;
                  ********************************
                  * ROPE IS FULLY EXTENDED-      *
                  *  DID IT HIT A CLIFF????      *
                  ********************************
E41A: A5 B5                LDA  ROPELN
                                           ;ROPE BAND= B5-B7.
E41C: 6A                   ROR
E41D: 6A                   ROR
E41E: 6A                   ROR
E41F: 6A                   ROR
E420: 6A                   ROR
E421: 29 07                AND  #7
E423: AA                   TAX             ;X=ROPE BAND #.
E424: E8                   INX             ;LOOK 1 BAND ABOVE.
E425: A5 B6                LDA  ROPPOS
E427: 20 1F EB             JSR  CLIFFHIT
E42A: B0 06                BCS  ATTACH     ;J HIT CLIFF.
                                           ;ELSE TURN OFF ROPE->
E42C: A9 00                LDA  #0
E42E: 85 B7                STA  ROPEST
E430: F0 06                BEQ  RM99
                  ATTACH
                                           ;ANCHOR ROPE->
E432: A5 B7                LDA  ROPEST
E434: 09 C0                ORA  #$C0
```

```
E436: 85 B7     >286          STA  ROFEST      ;PLANT IT.
                >287  RM99
```

```
                  ********************************
                  *  PTERYDACTYL MONITOR->        *
                  ********************************
E438: A6 B8                LDX   BIRDPOS
E43A: E0 78                CPX   #120
E43C: 90 0F                BCC   BIRDON
                                               ;TIME TO FLY??
E43E: A5 85                LDA   FRAMEL
E440: D0 19                BNE   BRD99
E442: A5 86                LDA   FRAMEH
E444: 29 03                AND   #3
E446: D0 13                BNE   BRD99
                                               ;
E448: 85 B8                STA   BIRDPOS       ;TURN ON BIRD.
E44A: 4C 5B E4             JMP   BRD99
                  BIRDON
E44D: A5 85                LDA   FRAMEL
E44F: 29 C0                AND   #$C0
E451: F0 08                BEQ   BRD99         ;MAKE HIM PAUSE.
                                               ;
E453: A5 85                LDA   FRAMEL
E455: 29 01                AND   #1
E457: D0 02                BNE   BRD99
E459: E6 B8                INC   BIRDPOS
                  BRD99
                                               ;
                  ********************************
                  *  MAINTAIN  BONUS  POINTS      *
                  ********************************
E45B: A5 85                LDA   FRAMEL
E45D: 29 0F                AND   #$0F
E45F: D0 1B                BNE   NOADD
                                               ;COUNTDOWN->
E461: A5 8E                LDA   BONUSL
E463: 05 8F                ORA   BONUSH
E465: D0 06                BNE   CNTDWN
E467: A9 50                LDA   #$50
E469: 85 8F                STA   BONUSH        ;WRAP TO 5K.
E46B: D0 0F                BNE   NOADD
                  CNTDWN
E46D: F8                   SED
E46E: 38                   SEC
E46F: A5 8E                LDA   BONUSL
E471: E9 0A                SBC   #10
E473: 85 8E                STA   BONUSL
E475: A5 8F                LDA   BONUSH
E477: E9 00                SBC   #0
E479: 85 8F                STA   BONUSH
E47B: D8                   CLD
                  NOADD
                                               ;
```

```
                **********************************
                *  SET  UP  DISPLAY  RAM->         *
                **********************************
                         PUT  ROC.SETUP
                */ ROC.SETUP  LASTED 12.19.83
                **********************************
                * SET UP DISPLAY RAM -->
                **********************************
                                                ;
                **********************************
                *  SET UP DINO/CAVEMAN RAM->       *
                **********************************
E47C: A2 04              LDX  #4
                SETR
                                                ;
E47E: A9 00              LDA  #<WHITETB
E480: 95 D7              STA  BCOLLO,X          ;WHITE FOR ROPE.
                                                ;
E482: A9 7A              LDA  #<NULLX
E484: 95 D1              STA  BDATLO,X          ;NULLS FOR ALL EXP IMGS.
                                                ;
E486: A9 DC              LDA  #<NULLM           ;NULLS FOR ALL MISSLE IMGS.
E488: 95 DD              STA  FMLO,X
E48A: 95 E3              STA  MALO,X
E48C: 95 E9              STA  MBLO,X
                                                ;SET UP DINO DATA PTRS->
E48E: B4 A2              LDY  DINDAT,X
E490: B9 9F ED           LDA  DINOTB,Y          ;GET DINO DATA PTR LO.
E493: 95 CB              STA  ADATLO,X
E495: B9 B3 ED           LDA  DINOTBHI,Y
E498: 95 C6              STA  ADATHI,X
                                                ;
E49A: A0 D6              LDY  #$D6              ;DINO COLOR.
E49C: B5 A2              LDA  DINDAT,X
E49E: 29 08              AND  #8                ;DINO OR CAVE?
E4A0: F0 02              BEQ  HAVDINO
E4A2: A0 F4              LDY  #$F4              ;CAVEMAN COLOR.
                HAVDINO
E4A4: 94 C1              STY  ACOL,X            ;DINO COLOR.
                                                ;PACK DINO ORD+INCR->
E4A6: B5 A7              LDA  DINDIR,X
E4A8: 29 08              AND  #$08              ;B3=ORD.
E4AA: 95 BC              STA  AORD,X
                                                ;
E4AC: B4 9D              LDY  DINPOS,X
E4AE: B9 C8 EE           LDA  POSTBL-8,Y
E4B1: 29 F0              AND  #$F0              ;INCR ONLY.
E4B3: 15 BC              ORA  SAIN,X            ;OR TO ORD.
E4B5: 95 BC              STA  SAIN,X
                                                ;
E4B7: CA                 DEX
E4B8: 10 C4              BPL  SETR
                                                ;
```

Handwritten annotations: "DEFAULT RAM ->" (beside SET UP DINO/CAVEMAN RAM); "use Nulls" (beside E488–E48C); "#<CAVEZ" (beside STA ADATLO,X); "#>CAVEZ; NULL D/C IMG." (beside STA ADATHI,X); "WHITE default" (beside LDY #$F4).

```
                 ********************************
                 * SET UP EGG/FALLING ROCK   ->  *
                 ********************************
E4BA: A5 85                LDA  FRAMEL
E4BC: 29 20                AND  #$20
E4BE: D0 05                BNE  RSIDE
                                             ;
E4C0: A5 B1                LDA  EGGPOS
E4C2: 4C CB E4             JMP  LSIDE
                 RSIDE
E4C5: A5 B1                LDA  EGGPOS
E4C7: 6A                   ROR
E4C8: 6A                   ROR
E4C9: 6A                   ROR
E4CA: 6A                   ROR
                 LSIDE
E4CB: A2 03                LDX  #3
E4CD: A0 D4                LDY  #<EGG1
                 EGGON
E4CF: 6A                   ROR
E4D0: 90 02                BCC  NXTEGG
E4D2: 94 E3                STY  MALO,X
                 NXTEGG
E4D4: CA                   DEX
E4D5: 10 F8                BPL  EGGON
                 NOEGG
                                             ;FALLING ROCK FRAME->
                 ********************************
                 * SET UP ELEV/WATERFALL-->     *
                 ********************************
E4D7: A5 82                LDA  ROUND1
E4D9: F0 1D                BEQ  NOELEV       ;NO ELEV/WATER RND 1.
E4DB: A6 B4                LDX  ELEVDAT
E4DD: C9 01                CMP  #1           ;ELEV RND?
E4DF: D0 0D                BNE  WATER        ;J N.
                                             ;LO PART OF ELEV->
E4E1: BD CC ED             LDA  ELEVIMG,X
E4E4: 85 DE                STA  FMLO+1
                                             ;
E4E6: BD D2 ED             LDA  ELEVIMG+6,X  ;TOP PART.
E4E9: 85 DF                STA  FMLO+2
E4EB: 4C F8 E4             JMP  NOELEV
                 WATER
E4EE: BD DA ED             LDA  WATERIMG,X
E4F1: 85 DE                STA  FMLO+1
E4F3: BD DE ED             LDA  WATERIMG+4,X
E4F6: 85 DD                STA  FMLO
                 NOELEV
                                             ;
                 ********************************
                 *  SET UP EXPLORER/FLASHLITE->
                 ********************************
E4F8: A5 94                LDA  EXPLN
E4FA: A0 00                LDY  #0
                 AGAIN
E4FC: 38                   SEC
E4FD: E9 1C                SBC  #28
E4FF: 30 03                BMI  GOTIT
E501: C8                   INY
E502: 10 F8                BPL  AGAIN        ;J ALWAYS
                 GOTIT
E504: 18                   CLC
E505: 69 1C                ADC  #28          ;ADD BACK LAST SUB.
E507: 85 EF                STA  TEMP1        ;SV LN OFFSET.
                                             ;DECIDE EXP/LIGHT->
```

```
E509: A6 97                  LDX  EXPSTAT
E50B: 30 0B                  BMI  LITEOFF
                                               ;
E50D: A5 85                  LDA  FRAMEL
E50F: 29 01                  AND  #1
E511: F0 05                  BEQ  LITEOFF
                                               ;
E513: A9 9E                  LDA  #<FLIGHT     ;FLASHLITE IMG.
E515: 4C 1D E5               JMP  LITEON
                   LITEOFF
E518: A6 96                  LDX  EXPDAT
E51A: BD C7 ED               LDA  EXPIMG,X     ;EXPL.IMG.
                   LITEON
E51D: 38                     SEC
E51E: E5 EF                  SBC  TEMP1
E520: 99 D1 00               STA  BDATLO,Y
                                               ;DO TOP BAND->
E523: 18                     CLC
E524: 69 1C                  ADC  #28
E526: 85 F0                  STA  TEMP2
                                               ;IN 1 BAND?
E528: A5 EF                  LDA  TEMP1
E52A: C9 00                  CMP  #0
E52C: F0 05                  BEQ  INBAND       ;J ONLY NEED 1 BAND.
E52E: A5 F0                  LDA  TEMP2
E530: 99 D2 00               STA  BDATLO+1,Y
                                               ;SET UP COLOR->
                   INBAND
E533: A6 97                  LDX  EXPSTAT
E535: 30 0B                  BMI  LTOFF
E537: A5 85                  LDA  FRAMEL
E539: 29 01                  AND  #1
E53B: F0 05                  BEQ  LTOFF
                                               ;
E53D: A9 2D                  LDA  #<YELOTB     ;FLASHLITE COLOR.
E53F: 4C 5B E5               JMP  LITON
                                               ;
                   LTOFF
E542: A5 97                  LDA  EXPSTAT
E544: 29 10                  AND  #$10
E546: F0 11                  BEQ  COLEXP       ;J NOT FALLING.
                                               ;
E548: A6 94                  LDX  EXPLN
E54A: D0 0D                  BNE  COLEXP       ;J NOT SITTING.
                                               ;
E54C: A9 1F                  LDA  #<EXPCOL+3
E54E: 4C 5B E5               JMP  LITON        ;SITTING COLOR TBL
E551: A9 1C                  LDA  #<EXPCOL
E553: A6 B2                  LDX  PWRTIM
E555: F0 04                  BEQ  LITON        ;J NO PWR.
E557: A9 49                  LDA  #<REDTBL
                   COLEXP
E559: A9 1C                  LDA  #<EXPCOL
                   LITON
E55B: 38                     SEC
E55C: E5 EF                  SBC  TEMP1
E55E: 99 D7 00               STA  BCOLLO,Y
                                               ;DO TOP BAND->
E561: 18                     CLC
E562: 69 1C                  ADC  #28
E564: 85 F0                  STA  TEMP2
E566: A5 EF                  LDA  TEMP1        ;NEED ONLY 1 BAND?
E568: C9 00                  CMP  #0
E56A: F0 05                  BEQ  EXP99        ;J Y.
E56C: A5 F0                  LDA  TEMP2
E56E: 99 D8 00               STA  BCOLLO+1,Y
```

```
>182
>183  EXP99
```

```
                  ********************************
                  *  SET  UP  ROPE--->            *
                  ********************************
E571: A5 B7                  LDA  ROPEST
E573: 29 C0                  AND  #$C0         ;KP STATUS.
E575: F0 2E                  BEQ  RLN99        ;J OFF.
                                               ;
E577: A5 B5                  LDA  ROPELN
E579: 29 E0                  AND  #$E0         ;GET BAND.
E57B: 4A                     LSR
E57C: 4A                     LSR
E57D: 4A                     LSR
E57E: 4A                     LSR
E57F: 4A                     LSR
E580: A8                     TAY               ;Y=BAND.
                                               ;
E581: A5 B7                  LDA  ROPEST
E583: 29 C0                  AND  #$C0
E585: C9 C0                  CMP  #$C0         ;ANCHORED?
E587: D0 05                  BNE  RLN80        ;J N.
E589: A9 65                  LDA  #<ROPE2      ;ANCHORED ROPE IMG.
E58B: 4C 96 E5               JMP  RLN90
                                               ;
                  RLN80
E58E: A5 B5                  LDA  ROPELN
E590: 29 0F                  AND  #$0F         ;LN OFFSET.
E592: 0A                     ASL               ;LN X 2.
E593: 18                     CLC
E594: 69 6D                  ADC  #<ROPE1      ;SHOOTING ROPE IMG.
                  RLN90
E596: 85 EF                  STA  TEMP1
                                               ;SET UP ROPE DIR-->
E598: A5 B7                  LDA  ROPEST
E59A: 29 08                  AND  #$08
E59C: D0 02                  BNE  LTOR
E59E: E6 EF                  INC  TEMP1
                  LTOR
E5A0: A5 EF                  LDA  TEMP1
E5A2: 99 E9 00               STA  MBLO,Y
                  RLN99
                                               ;
                  ********************************
                  *  SET UP  HI  PTRS-->          *
                  ********************************
E5A5: A9 F6                  LDA  #>MISC
E5A7: 85 EE                  STA  MB+1
E5A9: 85 E8                  STA  MA+1
E5AB: 85 E2                  STA  FM+1
E5AD: 85 DC                  STA  BCOL+1
                                               ;
E5AF: A9 F7                  LDA  #>DINO1
E5B1: 85 D0                  STA  ADAT+1
                                               ;
                  ********************************
                  * PASS EXP/LITE POS TO BANK2    *
                  ********************************
E5B3: A0 00                  LDY  #0
E5B5: A5 97                  LDA  EXPSTAT
E5B7: 30 10                  BMI  EXPON        ;J LITE OFF.
E5B9: A5 85                  LDA  FRAMEL
E5BB: 29 01                  AND  #1
E5BD: F0 0A                  BEQ  EXPON
E5BF: A0 06                  LDY  #6
E5C1: A5 97                  LDA  EXPSTAT
E5C3: 29 08                  AND  #$08
```

```
E5C5: F0 02                 BEQ   EXPON
E5C7: A0 FB                 LDY   #$FB
               EXPON
E5C9: 84 EF                 STY   TEMP1
E5CB: A5 95                 LDA   EXPPOS
E5CD: 18                    CLC
E5CE: 65 EF                 ADC   TEMP1
E5D0: A8                    TAY
E5D1: B9 D0 EE              LDA   POSTBL,Y
E5D4: 85 D6                 STA   BDAT+1        ;PASS POS TO BANK2.
                                                ;
               ********************************
               *  POS FM (ELEV/WATERFALL)     *
               ********************************
E5D6: A2 43                 LDX   #67
E5D8: BD D0 EE              LDA   POSTBL,X
E5DB: A2 04                 LDX   #4
E5DD: 20 57 ED              JSR   POS           ;POS W/O MVIN.
               ********************************
               *  POS MB (ROPE)               *
               ********************************
E5E0: A2 03                 LDX   #3
E5E2: A4 B6                 LDY   ROPFOS
E5E4: B9 D0 EE              LDA   POSTBL,Y
E5E7: 20 57 ED              JSR   POS           ;POS W/O MVIN.
               ********************************
               * POS MA(PWR EGGS/BOULDER)-->> *
               ********************************
E5EA: A5 85                 LDA   FRAMEL
E5EC: 29 01                 AND   #1
E5EE: D0 00                 BNE   PROCK         ;DO ROCK.
               PROCK
E5F0: A5 85                 LDA   FRAMEL
E5F2: 6A                    ROR
E5F3: 6A                    ROR
E5F4: 6A                    ROR
E5F5: 6A                    ROR
E5F6: 6A                    ROR
E5F7: 29 01                 AND   #1
E5F9: AA                    TAX
E5FA: BD 0D E6              LDA   EPOS,X
E5FD: A2 02                 LDX   #2            ;MA
E5FF: 20 57 ED              JSR   POS           ;POS W/O MVIN.
               ********************************
               * DO ALL FINE POSITIONING->    *
               ********************************
E602: 85 02                 STA   ATWAIT
E604: 85 2A                 STA   ATMVIN
E606: 85 02                 STA   ATWAIT
E608: 85 2B                 STA   ATREMV
E60A: 4C 0F E6              JMP   PEG99
               EPOS
E60D: 32 78                 DFB   50,120
               PEG99
```

PAG

WASTED TIME

```
                 ********************************
                 *  PAINT SCORE/TITLE           *
                 ********************************
                          PUT   ROC.TITLE
                 */ROC.TITLE - LASTED: 12.22.83
                 ********************************
                 SCREEN
E60F: AD 84 02            LDA   TIMER
E612: 30 FB               BMI   SCREEN
                                          ;
E614: A9 40               LDA   #$40
E616: 85 02               STA   ATWAIT
E618: 85 01               STA   ATBLNK    ;GUN ON.
                                          ;
E61A: A9 00               LDA   #BLACK
E61C: 85 09               STA   ATSCOL
                                          ;
E61E: A9 00               LDA   #0
E620: 85 0B               STA   ATAORD
E622: 85 0C               STA   ATBORD
                                          ;
                 *  DECIDE  WHICH SCREEN TO SHOW->
                 *--------------------------------
E624: A5 81               LDA   MODE
E626: C9 01               CMP   #PLAY
E628: F0 07               BEQ   CLIFF
                                          ;
E62A: C9 05               CMP   #RESUM
E62C: F0 06               BEQ   STGSCR
                                          ;
E62E: 4C 3D E6            JMP   TITSCR    ;ELSE DO TITLE SCREEN.
                 CLIFF
E631: 4C B3 E6            JMP   PSCORE
                                          ;
                                          ;
                 * SHOW "R N R  STAGE  X"-->
                 *----------------------------
                 STGSCR
E634: A9 8D               LDA   #<RNROPE
E636: A2 99               LDX   #<STAGE
E638: A0 7B               LDY   #<NULLTB
E63A: 4C 43 E6            JMP   SETUP
                                          ;
                 *  SHOW TITLE SCREEN  (COPR.)
                 *------------------------------
                 TITSCR
E63D: A9 8D               LDA   #<RNROPE  ;COLECO
E63F: A2 81               LDX   #<KONAMI  ;PRESNT
E641: A0 75               LDY   #<COLE83  ;RNROPE
                                          ;
                 SETUP
E643: 85 E8               STA   TEMP11
E645: 86 E9               STX   TEMP12
E647: 84 EA               STY   TEMP13
                                          ;
                                          ;
                 * SET UP FOR TOP WORD-->
                 ********************************
E649: A9 1A               LDA   #YELLOW
E64B: 85 06               STA   ATACOL
E64D: 85 07               STA   ATBCOL
                                          ;
E64F: A5 E8               LDA   TEMP11
E651: A2 EE               LDX   #>DATA2
E653: 20 90 E9            JSR   SPRIT6
```

DO MAIN CLIFF SCREEN

PAG.

```
                                                ;
E656: A2 28                 LDX   #40
                TOP1
E658: 85 02                 STA   ATWAIT
E65A: CA                    DEX
E65B: 10 FB                 BPL   TOP1
                                                ;
E65D: 20 00 ED              JSR   SCORE
                                                ;
                * SET UP FOR MIDDLE WORD-->
                ********************************
E660: A9 68                 LDA   #PURPLE
E662: 85 06                 STA   ATACOL
E664: 85 07                 STA   ATBCOL
                                                ;
E666: A5 E9                 LDA   TEMP12
E668: A2 EE                 LDX   #>DATA2
E66A: 20 90 E9              JSR   SPRIT6
                                                ;
E66D: A2 23                 LDX   #35
                MID1
E66F: 85 02                 STA   ATWAIT
E671: CA                    DEX
E672: 10 FB                 BPL   MID1
                                                ;
E674: 20 00 ED              JSR   SCORE
                                                ;
                * SET UP FOR BOTTOM WORD-->
                ********************************
E677: A9 0E                 LDA   #$0E
E679: 85 06                 STA   ATACOL
E67B: 85 07                 STA   ATBCOL
                                                ;
E67D: A5 EA                 LDA   TEMP13
E67F: A2 EE                 LDX   #>DATA2
E681: 20 90 E9              JSR   SPRIT6
                                                ;
                                                ;
E684: A5 81                 LDA   MODE
E686: C9 05                 CMP   #RESUM
E688: D0 0B                 BNE   NONUM
                                                ;"STAGE #"->
E68A: A4 82                 LDY   ROUND1
E68C: B9 6C ED              LDA   SCORTB+1,Y
E68F: 85 F8                 STA   PD100
E691: A9 EF                 LDA   #>DIGITS
E693: 85 F9                 STA   PD100+1
                NONUM
E695: A2 0F                 LDX   #15
                BOT1
E697: 85 02                 STA   ATWAIT
E699: CA                    DEX
E69A: 10 FB                 BPL   BOT1
                                                ;
E69C: 20 00 ED              JSR   SCORE
                                                ;
E69F: A2 46                 LDX   #70
                HOLD10
E6A1: 85 02                 STA   ATWAIT
E6A3: CA                    DEX
E6A4: 10 FB                 BPL   HOLD10
                                                ;
                                                ;
E6A6: A9 00                 LDA   #0
E6A8: 85 25                 STA   ATASEL
E6AA: 85 26                 STA   ATBSEL
```

```
E6AC: 85 04     >128           STA  ATACTL
E6AE: 85 05     >129           STA  ATBCTL
                >130                             ;
E6B0: 4C 24 E0  >131           JMP  BOTVI        ;NO SW BANKS.
```

```
                  ********************************
                  *   M A I N   S C R E E N      *
                  ********************************
                  PSCORE
E6B3: A9 00                    LDA  #BLACK
E6B5: 85 09                    STA  ATSCOL
                                                 ;
                  ********************************
                  *   PAINT 6 DIGIT SCORE
                  ********************************
E6B7: A9 6B                    LDA  #<DGTBL
E6B9: A2 EF                    LDX  #>DATA1
E6BB: 20 90 E9                 JSR  SPRIT6
E6BE: A9 0E                    LDA  #$0E
E6C0: 85 06                    STA  ATACOL
E6C2: 85 07                    STA  ATBCOL
E6C4: 20 00 ED                 JSR  SCORE        ;PAINT NUMBERS
                                                 ;
                  ********************************
                  * PAINT BONUS OR PTERYDACTYL->
                  ********************************
E6C7: A5 B8                    LDA  BIRDPOS
E6C9: C9 78                    CMP  #120
E6CB: B0 45                    BCS  PNTBON       ;GO DO BONUS.
                                                 ;DO BIRD->
E6CD: A4 B8                    LDY  BIRDPOS
E6CF: B9 D0 EE                 LDA  POSTBL,Y
E6D2: A2 00                    LDX  #0
E6D4: 20 57 ED                 JSR  POS          ;POS BIRD.
E6D7: 85 02                    STA  ATWAIT
E6D9: 85 2A                    STA  ATMVIN
E6DB: A9 00                    LDA  #0
E6DD: 85 04                    STA  ATACTL
E6DF: 85 25                    STA  ATASEL
E6E1: A9 08                    LDA  #8
E6E3: 85 08                    STA  ATAORD
                                                 ;
E6E5: A0 11                    LDY  #17
                  BOID
E6E7: 85 02                    STA  ATWAIT
E6E9: 85 2B                    STA  ATREMV
                                                 ;
E6EB: A5 85                    LDA  FRAMEL
E6ED: 29 10                    AND  #$10
E6EF: F0 0D                    BEQ  BOID2
                                                 ;
E6F1: B9 00 EC                 LDA  BIRD1,Y
E6F4: 85 1B                    STA  ATADAT
E6F6: B9 2D EC                 LDA  BRDCOL,Y
E6F9: 85 06                    STA  ATACOL
E6FB: 4C 08 E7                 JMP  BOID4
                                                 ;
                  BOID2
E6FE: B9 16 EC                 LDA  BIRD2,Y
E701: 85 1B                    STA  ATADAT
E703: B9 2C EC                 LDA  BRDCOL-1,Y
E706: 85 06                    STA  ATACOL
                  BOID4
E708: 88                       DEY
E709: 10 DC                    BPL  BOID
                                                 ;
E70B: A9 00                    LDA  #0
E70D: 85 0B                    STA  ATAORD
E70F: 4C 57 E7                 JMP  SETADR
                                                 ;
```

```
                 ********************************
                 * PAINT  " B O N U S "  -->    *
                 ********************************
                 PNTBON
E712: A9 93                LDA  #<BONUS     ;PAINT "BONUS"
E714: A2 EF                LDX  #>DIGITS
E716: 20 90 E9             JSR  SPRIT6
                                            ;
E719: A9 5A                LDA  #$5A
E71B: 85 06                STA  ATACOL
E71D: 85 07                STA  ATBCOL
                                            ;
                                            ;
E71F: 20 22 ED             JSR  SCORNP      ;PAINT "BONUS"
                                            ;
                 ********************************
                 *  PAINT BONUS POINTS-->
                 ********************************
E722: A5 8E                LDA  BONUSL
E724: 29 0F                AND  #$0F
E726: A8                   TAY
E727: B9 6B ED             LDA  SCORTB,Y
E72A: 85 FA                STA  PD10
E72C: A5 8E                LDA  BONUSL
E72E: 4A                   LSR
E72F: 4A                   LSR
E730: 4A                   LSR
E731: 4A                   LSR
E732: A8                   TAY
E733: B9 6B ED             LDA  SCORTB,Y
E736: 85 F8                STA  PD100
E738: A5 8F                LDA  BONUSH
E73A: 29 0F                AND  #$0F
E73C: A8                   TAY
E73D: B9 6B ED             LDA  SCORTB,Y
E740: 85 F6                STA  PD1K
E742: A5 8F                LDA  BONUSH
E744: 4A                   LSR
E745: 4A                   LSR
E746: 4A                   LSR
E747: 4A                   LSR
E748: A8                   TAY
E749: B9 6B ED             LDA  SCORTB,Y
E74C: 85 F4                STA  PD10K
                                            ;
E74E: A9 2A                LDA  #$2A
E750: 85 06                STA  ATACOL
E752: 85 07                STA  ATBCOL
E754: 20 22 ED             JSR  SCORNP
                                            ;ALL ON SAME PG.FOR NOW.
                                            ;
                 *********************************
                 * SET UP POS RTN ADDRS FOR DINOS*
                 *********************************
                 SETADR
E757: A2 04                LDX  #4
E759: A0 00                LDY  #0
E75B: 84 EF                STY  TEMP1
                 SET5
E75D: B4 9D                LDY  DINPOS,X
E75F: B9 C8 EE             LDA  POSTBL-8,Y
E762: 29 07                AND  #$07
E764: A8                   TAY
E765: B9 E2 ED             LDA  POSRTN,Y
E768: A4 EF                LDY  TEMP1
E76A: 99 F6 00             STA  SAPOS4,Y    ;SET LO.
```

```
                                          ;
E76D: E6 EF          INC  TEMP1
E76F: A9 FF          LDA  #>LAT1
E771: A4 EF          LDY  TEMP1
E773: 99 F6 00       STA  SAFOS4,Y    ;SET HI
E776: E6 EF          INC  TEMP1
E778: CA             DEX
E779: 10 E2          BPL  SET5
                                          ;
E77B: 4C 00 E0       JMP  TOPSW       ;SW BANKS.
```

Move to BANK 2

```
                   ******************************
                   *  SOUND TABLES              *
                   ******************************
                            PUT  ROC.SONGS
                   */ ROC.SONGS   LASTED:12/21/83
                   ******************************
                                                ;
                   ******************************
                   * MAINTAIN SOUNDS OR MUSIC-->  *
                   *                            *
                   *  REQUIRES 2 BYTES FOR EACH *
                   *  NOTE IN SOUND + 4 BYTES OF *
                   *  RAM.                      *
                   ******************************
                   SOUND
E77E: A2 01                 LDX  #1         ;DO BOTH CHANNELS.
                   SND1
E780: B5 92                 LDA  ADUR,X
E782: 30 35                 BMI  SND85      ;J SND NOT ON.
E784: D0 31                 BNE  SND80      ;J SND NOT DONE YET.
                                            ;
E786: B4 90                 LDY  AIDX,X
E788: B9 BD E7              LDA  FVTBL,Y    ;GET FREQ/VOL PARAMS.
E78B: C9 FF                 CMP  #$FF
E78D: D0 08                 BNE  SND25      ;J NOT END OF SND.
                                            ;ENDIT->
E78F: 95 92                 STA  ADUR,X
E791: A9 00                 LDA  #0
E793: 95 19                 STA  ATAVOL,X   ;TURN OFF VOL.
E795: F0 22                 BEQ  SND85
                   SND25
E797: 95 17                 STA  ATADIV,X   ;NEW FREQ.
E799: 4A                    LSR
E79A: 4A                    LSR
E79B: 4A                    LSR
E79C: 4A                    LSR
E79D: 4A                    LSR
E79E: A8                    TAY
E79F: B9 35 E8              LDA  VOLTBL,Y
E7A2: 95 19                 STA  ATAVOL,X   ;NEW VOL.
E7A4: B4 90                 LDY  AIDX,X
E7A6: B9 4B E8              LDA  WDTBL,Y    ;GET WAVE/DUR PARAMS.
E7A9: 95 15                 STA  ATAWAV,X   ;NEW WAVE.
E7AB: 4A                    LSR
E7AC: 4A                    LSR
E7AD: 4A                    LSR
E7AE: 4A                    LSR
E7AF: A8                    TAY
E7B0: B9 3D E8              LDA  DURTBL,Y
E7B3: 95 92                 STA  ADUR,X     ;NEW DUR.
E7B5: F6 90                 INC  AIDX,X     ;UP NOTE PTR.
                   SND80
E7B7: D6 92                 DEC  ADUR,X
                   SND85
E7B9: CA                    DEX
E7BA: 10 C4                 BPL  SND1       ;DO BOTH CHANNELS.
                   SND99
                                            ;
E7BC: 60                    RTS
                                            ;
```

```
                ********************************
                * FVTBL - FREQ/VOL PARAMS      *
                *           B0-B4 = FREQ DIV    *
                *           B5-B7 = IDX TO VOLTBL*
                ********************************
                                           ;
                FVTBL
                SONG1A
                                           ;TITLE SONG.
E7BD: 17 13 1A
E7C0: 17 13             DFB  $17,$13,$1A,$17,$13
E7C2: 1A 17 13
E7C5: 1A 17             DFB  $1A,$17,$13,$1A,$17
E7C7: 13 1A 17
E7CA: 13 1A             DFB  $13,$1A,$17,$13,$1A
E7CC: 17 13 1A
E7CF: 17 13             DFB  $17,$13,$1A,$17,$13
E7D1: 1A 17 13
E7D4: 1A 17             DFB  $1A,$17,$13,$1A,$17
E7D6: 13 1A 17
E7D9: 13 F3             DFB  $13,$1A,$17,$13,$F3
E7DB: 13 17 1A          DFB  $13,$17,$1A
E7DE: FF                DFB  $FF           ;END OF SONG.
                SONG1B
E7DF: 0E EE 0E
E7E2: 0F 11             DFB  $0E,$EE,$0E,$0F,$11
E7E4: 14                DFB  $14
E7E5: FF                DFB  $FF
                SONG2A
                                           ;SCREEN 1 SONG->
E7E6: 15 F5 11
E7E9: F1                DFB  $15,$F5,$11,$F1
E7EA: 0E EE 0C
E7ED: EC                DFB  $0E,$EE,$0C,$EC
E7EE: 0E EE 0E
E7F1: EE                DFB  $0E,$EE,$0E,$EE
E7F2: 0C EC 0E
E7F5: EE                DFB  $0C,$EC,$0E,$EE
E7F6: 11 F1 10
E7F9: F0                DFB  $11,$F1,$10,$F0
E7FA: 0C EC 0A
E7FD: EA                DFB  $0C,$EC,$0A,$EA
E7FE: 1D FD 0A
E801: EA                DFB  $1D,$FD,$0A,$EA
E802: 0A EA 1D
E805: FD                DFB  $0A,$EA,$1D,$FD
E806: 0A EA 0C
E809: EC                DFB  $0A,$EA,$0C,$EC
E80A: FF                DFB  $FF           ;END OF SONG.
                FVBULL
                                           ;BULLET
E80B: E9 A5 64          DFB  $E9,$A5,$64
E80E: FF                DFB  $FF           ;END
                FVCANN
E80F: F1 BE 7A
E812: 2D                DFB  $F1,$BE,$7A,$2D
E813: 28                DFB  $28
E814: FF                DFB  $FF
                FVEXP1
E815: F8 B4 74
E818: 51                DFB  $F8,$B4,$74,$51
E819: 2E 2F             DFB  $2E,$2F
E81B: FF                DFB  $FF           ;END
                FVMGUN
E81C: E1 FB E1
```

```
E81F: F8                  DFB   $E1,$FB,$E1,$F8
E820: E1 E1 FB
E823: E3                  DFB   $E1,$E1,$FB,$E3
E824: FB E6               DFB   $FB,$E6
E826: FF                  DFB   $FF
                FVRUN
E827: B0 00 E9
E82A: 00                  DFB   $B0,$00,$E9,$00
E82B: E5 00 E9
E82E: 00                  DFB   $E5,$00,$E9,$00
E82F: AC                  DFB   $AC
E830: FF                  DFB   $FF
                FVTANK
E831: 9B BB FB            DFB   $9B,$BB,$FB
E834: FF                  DFB   $FF
```

```
                    ******************************
                    *  VOLTBL                    *
                    ******************************
                    VOLTBL
E835: 0C 02 04
E838: 06                      DFB  12,2,4,6
E839: 08 0A 0B
E83C: 00                      DFB  8,10,11,0
                                               ;
                    ******************************
                    *  DURTBL                    *
                    ******************************
                    DURTBL
                                               ;
E83D: 0C 46 02
E840: 03 04 05
E843: 06 07                   DFB  12,70,2,3,4,5,6,7
E845: 08 09 0A
E848: 0B 4E 54                DFB  8,9,10,11,78,84
                                               ;
                    ******************************
                    * WDTBL-WAVE/DURATION PARAMS *
                    *  B0-B3 = WAVEFORM          *
                    *  B4-B7 = DURTBL IDX        *
                    ******************************
                    WDTBL
                    WDSONG1A
                                               ;TITLE SONG->
E84B: 64 64 64
E84E: 64 64                   DFB  $64,$64,$64,$64,$64
E850: 64 64 64
E853: 64 64                   DFB  $64,$64,$64,$64,$64
E855: 64 64 64
E858: 64 64                   DFB  $64,$64,$64,$64,$64
E85A: 64 64 64
E85D: 64 64                   DFB  $64,$64,$64,$64,$64
E85F: 64 64 64
E862: 64 64                   DFB  $64,$64,$64,$64,$64
E864: 64 64 64
E867: 44 24                   DFB  $64,$64,$64,$44,$24
E869: 64 64 C4                DFB  $64,$64,$C4
E86C: FF                      DFB  $FF         ;END OF SONG.
                    WDSONG1B
E86D: 1C 2C 0C
E870: DC 0C                   DFB  $1C,$2C,$0C,$DC,$0C
E872: DC                      DFB  $DC
E873: FF                      DFB  $FF
                                               ;
                    WDSONG2A
                                               ;SCREEN 1 SONG->
E874: 6C 5C 6C
E877: 5C                      DFB  $6C,$5C,$6C,$5C
E878: 6C 5C 6C
E87B: 5C                      DFB  $6C,$5C,$6C,$5C
E87C: 3C 3C 3C
E87F: 2C                      DFB  $3C,$3C,$3C,$2C
E880: 6C 5C 6C
E883: 5C                      DFB  $6C,$5C,$6C,$5C
E884: 6C 5C 6C
E887: 5C                      DFB  $6C,$5C,$6C,$5C
E888: 6C 5C 6C
E88B: 5C                      DFB  $6C,$5C,$6C,$5C
E88C: 64 54 3C
E88F: 3C                      DFB  $64,$54,$3C,$3C
E890: 3C 2C 64
```

```
E893: 54                 DFB  $3C,$2C,$64,$54
E894: 6C 5C 6C
E897: 5C                 DFB  $6C,$5C,$6C,$5C
E898: FF                 DFB  $FF          ;END OF SONG.
               WDBULL
                                           ;BULLET
E899: 48 48 48           DFB  $48,$48,$48
E89C: FF                 DFB  $FF          ;END SND.
               WDCANN
                                           ;CANNON
E89D: 88 88 88
E8A0: 88                 DFB  $88,$88,$88,$88
E8A1: 88                 DFB  $88
E8A2: FF                 DFB  $FF          ;END.
                                           ;
               WDEXP1
                                           ;EXPLOSION 1.
E8A3: D8 D8 D8
E8A6: D8                 DFB  $D8,$D8,$D8,$D8
E8A7: D8 D8              DFB  $D8,$D8
E8A9: FF                 DFB  $FF
               WDMGUN
                                           ;MACHINE GUN.
E8AA: 28 28 28
E8AD: 28                 DFB  $28,$28,$28,$28
E8AE: 28 28 28
E8B1: 28                 DFB  $28,$28,$28,$28
E8B2: 28 28              DFB  $28,$28
E8B4: FF                 DFB  $FF          ;END.
               WDRUN
                                           ;SOLDIER RUNNING
E8B5: 62 62 62
E8B8: 62                 DFB  $62,$62,$62,$62
E8B9: 62 62 62
E8BC: 62                 DFB  $62,$62,$62,$62
E8BD: 62                 DFB  $62
E8BE: FF                 DFB  $FF          ;END
                                           ;
               WDTANK
                                           ;TANK RUMBLE.
E8BF: FF FF FF           DFB  $FF,$FF,$FF
E8C2: FF                 DFB  $FF
```

```
                  ********************************
                  * START SOUNDS ROUTINES          *
                  * IN:                            *
                  * Y = SND IDX TO FVTBL+WDTBL     *
                  * X = IDX TO DESIRED CHANNEL     *
                  *                                *
                  *OUT:                            *
                  *     SOUND/MUSIC INITIALIZED.   *
                  *     ACC. DESTROYED.            *
                  ********************************
                  LOSND
                                                  ;LO PRIORITY ENTRY->
E8C3: B5 92                  LDA   ADUR,X
E8C5: 10 06                  BPL   SON99          ;J SOME OTHER SND ON.
                  HISND
                                                  ;HI PRIORITY ENTRY->
E8C7: 94 90                  STY   AIDX,X
                                                  ;START SOUND->
E8C9: A9 00                  LDA   #0
E8CB: 95 92                  STA   ADUR,X
                  SON99
E8CD: 60                     RTS
                                                  ;
```

```
                       PUT  ROC.SUBS1
                  */ ROC.SUBS1   LASTED:12/29/83
                  ******************************
                  *    S U B R O U T I N E S   *
                  ******************************
                  * INITIAL POSITIONS FOR DINOS &
                  * CAVEMEN BY ROUND NUMBER-->
                  ******************************
                  PADLO
E8CE: D1                     DFB  <PADRND1
E8CF: D6                     DFB  <PADRND2
E8D0: DB                     DFB  <PADRND3
                  POSADR
                  PADRND1
E8D1: 14 5A 14
E8D4: 5A 14                  DFB  20,90,20,90,20
                  PADRND2
E8D6: 14 55 50
E8D9: 32 14                  DFB  20,85,80,50,20
                  PADRND3
E8DB: 1E 6E 1E
E8DE: 46 50                  DFB  30,110,30,70,80
                                            ;
                  * INITIAIZATION FOR A NEW RND  *
                  ******************************
                  IGAME
E8E0: A9 31                  LDA  #$31
E8E2: 85 0A                  STA  ATFCTL      ;MIRROR
                                            ;
E8E4: A9 00                  LDA  #0
E8E6: 85 92                  STA  ADUR
E8E8: 85 93                  STA  BDUR        ;SND ON.
E8EA: A9 00                  LDA  #WDTBL-WDSONG1A
E8EC: 85 90                  STA  AIDX
E8EE: A9 DE                  LDA  #WDTBL-WDSONG1B
E8F0: 85 91                  STA  BIDX
                                            ;
E8F2: 85 91                  STA  BIDX        ;SONG1.
                                            ;
                                            ;
                  IROUND
                  *LDX PLAYER
E8F4: A4 82                  LDY  ROUND1
E8F6: B9 CE E8               LDA  PADLO,Y
E8F9: 85 EF                  STA  TEMP1
E8FB: A9 E8                  LDA  #>POSADR
E8FD: 85 F0                  STA  TEMP2
E8FF: B9 37 E9               LDA  EGGTBL,Y
E902: 85 B1                  STA  EGGPOS      ;INIT EGG ON/OFF FLAGS.
                                            ;
                                            ;
E904: A0 04                  LDY  #4
                  IDINO
E906: B1 EF                  LDA  (TEMP1),Y
E908: 99 9D 00               STA  DINPOS,Y
                                            ;
E90B: B9 10 EB               LDA  IDDIR,Y
E90E: 99 A7 00               STA  DINDIR,Y
E911: B9 15 EB               LDA  IDDAT,Y
E914: 99 A2 00               STA  DINDAT,Y
E917: B9 1A EB               LDA  IDLN,Y      ;GET DINO LINE NUM.
E91A: 99 98 00               STA  DINLN,Y
E91D: 88                     DEY
E91E: 10 E6                  BPL  IDINO
                                            ;
```

only 4/DC

3

```
E920: A9 0A              LDA  #10
E922: 85 95              STA  EXPPOS
E924: A9 00              LDA  #0
E926: 85 94              STA  EXPLN
E928: 85 B7              STA  ROPEST      ;ROPE OFF.
E92A: A9 80              LDA  #$80
E92C: 85 97              STA  EXPSTAT     ;LITE OFF,EXP FACE R.
E92E: A9 05              LDA  #RESUM
E930: 85 81              STA  MODE
E932: A9 70              LDA  #$70
E934: 85 85              STA  FRAMEL
E936: 60                 RTS
                EGGTBL
E937: AA 55 A5           DFB  $AA,$55,$A5
                                          ;
                                          ;
                *******************************
                *  ANIMATE EXPLORER -->       *
                *******************************
                ANIMEXP
E93A: A5 85              LDA  FRAMEL
E93C: 29 07              AND  #7
E93E: D0 15              BNE  AN99
                                          ;
E940: A5 97              LDA  EXPSTAT
E942: 29 10              AND  #$10        ;FALLING?
E944: F0 04              BEQ  AN44        ;J N.
E946: A2 03              LDX  #3
E948: D0 09              BNE  AN80        ;FALL IMG.
                                          ;
                AN44
E94A: A6 96              LDX  EXPDAT
E94C: E8                 INX
E94D: E0 04              CPX  #4
E94F: D0 02              BNE  AN80
E951: A2 00              LDX  #0
                AN80
E953: 86 96              STX  EXPDAT
                AN99
E955: 60                 RTS
                                          ;
```

```
                *******************************
                * MOVEXP:                     *
                *   ADD H OFFSET TO EXP POS,  *
                *   ADD V OFFSET TO EXP LN.   *
                *     DO NOTHING IF EITHER    *
                *     MOVE WOULD PUT EXP PAST *
                *     ALLOWED UDL OR R EDGES. *
                *                             *
                * IN:                         *
                *     A = VERT OFFSET         *
                *     X = HORIZ OFFSET        *
                * EG:                         *
                *          VOFF    HOFF       *
                *          -----   -----      *
                * UR        1       1         *
                * DR        FF      1         *
                * UL        1       FF        *
                * DL        FF      FF        *
                * R         0       1         *
                * L         0       FF        *
                * U         1       0         *
                * D         FF      0         *
                *                             *
                *******************************
                VMAX      =    113
                VMIN      =    0
                HMAX      =    127
                HMIN      =    6
                                              ;
                MOVEXP
E956: 18                  CLC
E957: 65 94               ADC   EXPLN
E959: A8                  TAY                 ;SV PROPOSED NEW EXPLN.
E95A: C9 71               CMP   #VMAX
E95C: B0 14               BCS   BADMOV
E95E: C9 00               CMP   #VMIN
E960: 90 10               BCC   BADMOV
                                              ;VERT IS OK.
E962: 8A                  TXA
E963: 18                  CLC
E964: 65 95               ADC   EXPPOS
E966: C9 7F               CMP   #HMAX
E968: B0 08               BCS   BADMOV
E96A: C9 06               CMP   #HMIN
E96C: 90 04               BCC   BADMOV
                                              ;BOTH NEW H+V ARE OK->
E96E: 85 95               STA   EXPPOS        ;SV NEW HPOS.
E970: 84 94               STY   EXPLN         ;SV NEW VPOS.
                BADMOV
E972: 60                  RTS
```

```
                 ********************************
                 * ONLTR:                       *
                 *     1) IS ROPE FACING LTR?   *
                 *     2) IS ROPE ANCHORED?     *
                 *     3) IS EXPLORER ON ROPE?  *
                 ********************************
                 ONLTR
E973: A9 08                LDA  #8
E975: 25 B7                AND  ROPEST      ;ROPE LTR?
E977: F0 15                BEQ  NOROPE      ;J N.
                 EXON
E979: A5 B7                LDA  ROPEST
E97B: 6A                   ROR
E97C: 90 10                BCC  NOROPE      ;J EXP NOT ON ROPE.
E97E: A5 B7                LDA  ROPEST
E980: 29 C0                AND  #$C0
E982: C9 C0                CMP  #$C0        ;ROPE ANCHORED?
E984: D0 08                BNE  NOROPE
                                            ;ELSE ALL ROPE TESTS PASSED.
E986: 38                   SEC
E987: 60                   RTS
                                            ;
                 ********************************
                 * ONRTL:                       *
                 *                              *
                 *                              *
                 ********************************
                 ONRTL
E988: A9 08                LDA  #8
E98A: 25 B7                AND  ROPEST      ;ROPE IS RTL?
E98C: F0 EB                BEQ  EXON        ;J Y.
                 NOROPE
E98E: 18                   CLC
E98F: 60                   RTS
                                            ;
```

```
                ********************************
                * LOAD PTRS FOR 6 SPRITES-->   *
                * X = HI PTR FOR WHERE DATA IS *
                * A = LO ADDR OF TBL WHERE LO  *
                *      BYTE PTRS ARE           *
                ********************************
                SPRIT6
E990: 85 EF              STA  TEMP1
E992: A9 ED              LDA  #>DGTBL
E994: 85 F0              STA  TEMP2
E996: 86 F1              STX  TEMP3
E998: A0 05              LDY  #5
E99A: A2 0B              LDX  #11
                SPR6
E99C: A5 F1              LDA  TEMP3
E99E: 95 F2              STA  PD100K,X
E9A0: CA                 DEX
E9A1: B1 EF              LDA  (TEMP1),Y
E9A3: 95 F2              STA  PD100K,X
E9A5: CA                 DEX
E9A6: 88                 DEY
E9A7: 10 F3              BPL  SPR6
E9A9: 60                 RTS
                ********************************
                * PAINT INVENTORY-->           *
                ********************************
                INVENT
E9AA: A0 10              LDY  #16
                INV5
E9AC: 85 02              STA  ATWAIT
                *LDX EXP1,Y
E9AE: A5 85              LDA  FRAMEL
E9B0: 29 20              AND  #$20
E9B2: F0 00              BEQ  EX1
                *LDX EXP2,Y
                EX1
E9B4: 86 1B              STX  ATADAT
                *LDA EXPCOL,Y
E9B6: 85 06              STA  ATACOL
E9B8: 88                 DEY
E9B9: 10 F1              BPL  INV5
E9BB: A9 00              LDA  #0
E9BD: 85 1B              STA  ATADAT
E9BF: 60                 RTS
                INVTBL
E9C0: 00 80 81
E9C3: 83 03 13
E9C6: 33                 DFB  0,$80,$81,$83,$03,$13,$33
```

```
                          OBJ  BEGOBJ+$B00
                          ORG  BEGORG+$B00
                          PUT  ROC.CLIFFHIT
               */ ROC.CLIFFHIT LASTED:12/11/83
               ********************************
               * ONPLAT- IS EXP ON A PLATFORM *
               *    RET EQ IF YES.            *
               ********************************
               ONPLAT
EB00: A5 94               LDA  EXPLN
               ONP5
EB02: 38                  SEC
EB03: E9 1C               SBC  #28
EB05: 10 FB               BPL  ONP5

EB07: 18                  CLC
EB08: 69 1C               ADC  #28
EB0A: 60                  RTS
               IDPOS
EB0B: 0A 10 18
EB0E: 20 28               DFB  10,16,24,32,40
               IDDIR
EB10: 00 00 00
EB13: 00 00               DFB  0,0,0,0,0
               IDDAT
EB15: 00 09 00
EB18: 0A 00               DFB  0,9,0,10,0
                                              ;INITIAL DINO LINE NUMS->
               IDLN
EB1A: 00 1C 38
EB1D: 54 70               DFB  0,28,56,84,112
                                              ;
               ********************************
               * CLIFFHIT-IS A POS ON A CLIFF?*
               *    IN: ACC=H POS             *
               *         X  = BAND # (0-5)    *
               *                              *
               *  OUT: C=1 = HIT CLIFF        *
               *       C=0 = MISSED CLIFF     *
               ********************************
               CLIFFHIT
EB1F: 85 EF               STA  TEMP1          ;SV HPOS
EB21: BD A1 EB            LDA  LEVELO,X
EB24: 85 F0               STA  TEMP2
EB26: A9 EB               LDA  #>LEVTBL
EB28: 85 F1               STA  TEMP3
EB2A: A4 82               LDY  ROUND1
EB2C: B1 F0               LDA  (TEMP2),Y
EB2E: 85 F0               STA  TEMP2
EB30: A9 EB               LDA  #>HITTBL
EB32: 85 F1               STA  TEMP3
                                              ;T3+T4 HAV START ADDR OF RANGE TBL
.
EB34: A0 FF               LDY  #$FF
               RTRY
EB36: C8                  INY
EB37: B1 F0               LDA  (TEMP2),Y      ;GET A LEFT EDGE.
EB39: C9 FF               CMP  #$FF           ;DONE ALL CLIFFS THIS LVL?
EB3B: F0 0D               BEQ  MISSCL         ;J Y.
                                              ;
EB3D: C5 EF               CMP  TEMP1
EB3F: B0 09               BCS  MISSCL         ;J LEFT EDGE OF CLIFF>POS.
                                              ;LEFT EDGE OF CLIFF IS < POS.
EB41: C8                  INY
EB42: B1 F0               LDA  (TEMP2),Y      ;GET A RT EDGE.
```

Tighten up!

Do Bin Search of Ledge LN's!

Only 4

```
EB44: C5 EF               CMP  TEMP1
EB46: 90 EE               BCC  RTRY          ;J POS>RT EDGE.
                HITCL
EB48: 38                  SEC
EB49: 60                  RTS
                MISSCL
EB4A: 18                  CLC
EB4B: 60                  RTS
                                             ;
                *******************************
                * HIT TABLES-RANGES WHERE POS/4*
                * IS OKAY TO WALK ON BY LEVEL  *
                *******************************
                                             ;
                HITTBL
                                             ;SCREEN1,LEVEL 0->
                S1LV0
                S1LV1
EB4C: 04 34               DFB  4,52
EB4E: 54 84               DFB  84,132
EB50: FF                  DFB  $FF
                S1LV2
                S1LV3
EB51: 10 38               DFB  16,56
EB53: 50 78               DFB  80,120
EB55: FF                  DFB  $FF
                S1LV4
EB56: 08 38               DFB  8,56
EB58: 3C 4C               DFB  60,76
EB5A: 50 80               DFB  80,128
EB5C: FF                  DFB  $FF
                S1LV5
                S2LV5
EB5D: 14 34               DFB  20,52
EB5F: 50 70               DFB  80,112
EB61: FF                  DFB  $FF
                                             ;
                S2LV0
EB62: 04 3C               DFB  4,60
EB64: 48 80               DFB  72,128
EB66: FF                  DFB  $FF
                S2LV1
EB67: 20 3C               DFB  32,60
EB69: 4C 68               DFB  76,104
EB6B: FF                  DFB  $FF
                S2LV2
EB6C: 28 40               DFB  40,64
EB6E: 48 60               DFB  72,96
EB70: FF                  DFB  $FF
                S2LV3
EB71: 24 40               DFB  36,64
EB73: 48 64               DFB  72,100
EB75: FF                  DFB  $FF
                S2LV4
EB76: 10 38               DFB  16,56
EB78: 3C 4C               DFB  60,76
EB7A: 50 78               DFB  80,120
EB7C: FF                  DFB  $FF
                                             ;
                S3LV0
                S3LV1
EB7D: 08 38               DFB  8,56
EB7F: 4C 7C               DFB  76,124
EB81: FF                  DFB  $FF
                S3LV2
EB82: 08 3C               DFB  8,60
```

```
EB84: 48 7C                DFB  72,124
EB86: FF                   DFB  $FF
                    S3LV3
                    S3LV4
EB87: 18 3C                DFB  24,60
EB89: 48 6C                DFB  72,108
EB8B: FF                   DFB  $FF
                    S3LV5
EB8C: 38 4C                DFB  56,76
EB8E: FF                   DFB  $FF
                                          ;
                    * LO BYTE ADDRS FOR BASE OF HIT TBLS->
                                          ;
                    LEVTBL
                    LEV0
EB8F: 4C                   DFB  <S1LV0
EB90: 62                   DFB  <S2LV0
EB91: 7D                   DFB  <S3LV0
                    LEV1
EB92: 4C                   DFB  <S1LV1
EB93: 67                   DFB  <S2LV1
EB94: 7D                   DFB  <S3LV1
                    LEV2
EB95: 51                   DFB  <S1LV2
EB96: 6C                   DFB  <S2LV2
EB97: 82                   DFB  <S3LV2
                    LEV3
EB98: 51                   DFB  <S1LV3
EB99: 71                   DFB  <S2LV3
EB9A: 87                   DFB  <S3LV3
                    LEV4
EB9B: 56                   DFB  <S1LV4
EB9C: 76                   DFB  <S2LV4
EB9D: 87                   DFB  <S3LV4
                    LEV5
EB9E: 5D                   DFB  <S1LV5
EB9F: 5D                   DFB  <S2LV5
EBA0: 8C                   DFB  <S3LV5
                                          ;
                    * LO BYTE ADDRS FOR BASE OF LEVEL TBL->
                                          ;
                    LEVELO
EBA1: 8F                   DFB  <LEV0
EBA2: 92                   DFB  <LEV1
EBA3: 95                   DFB  <LEV2
EBA4: 98                   DFB  <LEV3
EBA5: 9B                   DFB  <LEV4
EBA6: 9E                   DFB  <LEV5
                                          ;
```

```
                 ******************************
                 *  BIRD + MISC IMAGES-->     *
                 ******************************
                          OBJ  BEGOBJ+$C00
                          ORG  BEGORG+$C00
                          PUT  ROC.BIRD1
                 */ ROC.BIRD1   LASTED:11.17.83
                                              ;
                 *  P T E R Y D A C T Y L -->
                 ******************************
                 BIRD1
EC00: 00 00               DFB  0,0
EC02: 3C 3C 3C
EC05: 3C                  DFB  $3C,$3C,$3C,$3C
EC06: 28 10 18
EC09: 3C                  DFB  $28,$10,$18,$3C
EC0A: 3E 7F A9
EC0D: 6C                  DFB  $3E,$7F,$A9,$6C
EC0E: 1C 1A 1D
EC11: 0F                  DFB  $1C,$1A,$1D,$0F
EC12: 00 00 00
EC15: 00                  DFB  0,0,0,0
                                              ;
                 BIRD2
EC16: 00 00 00            DFB  0,0,0
EC19: 3C 3C 3C
EC1C: 3C                  DFB  $3C,$3C,$3C,$3C
EC1D: 28 10 1C
EC20: 3E                  DFB  $28,$10,$1C,$3E
EC21: 7F BD 6E
EC24: 0F                  DFB  $7F,$BD,$6E,$0F
EC25: 00 00 00
EC28: 00                  DFB  0,0,0,0
EC29: 00 00 00
EC2C: 00                  DFB  0,0,0,0
                                              ;
                 BRDCOL
EC2D: 00 00               DFB  0,0
EC2F: F2 F2 F2
EC32: F2                  DFB  $F2,$F2,$F2,$F2
EC33: 44 44 46
EC36: 46                  DFB  $44,$44,$46,$46
EC37: 46 46 46
EC3A: 46                  DFB  $46,$46,$46,$46
EC3B: 46 46 46
EC3E: 46                  DFB  $46,$46,$46,$46
EC3F: 46 46 46
EC42: 46                  DFB  $46,$46,$46,$46
                                              ;
```

```
                OBJ  BEGOBJ+$D00
                ORG  BEGORG+$D00
          ********************************
          *  IMAGE & ADDRESS TABLES      *
          ********************************
                PUT  ROC.SCORE  RTN
          */ROC.SCORE RTN - LASTED 12/19/83
          * DISPLAYS A 6 DIGIT(SPRITE) SCORE
          ********************************
          SCORE
ED00: A9 03     LDA  #3
ED02: 85 02     STA  ATWAIT
ED04: 85 04     STA  ATACTL     ;1X 3C 8S
ED06: 85 05     STA  ATBCTL
ED08: 85 25     STA  ATASEL     ;SELECT OUTER BUFF
ED0A: 85 26     STA  ATBSEL
                                ;
          * PUT SPRITES SIDE BY SIDE
ED0C: A9 10     LDA  #$10
ED0E: 85 20     STA  ATSAIN
ED10: 0A        ASL
ED11: 85 21     STA  ATSBIN
ED13: EA        NOP
ED14: EA        NOP
ED15: EA        NOP
ED16: EA        NOP
ED17: EA        NOP
ED18: EA        NOP
ED19: EA        NOP
ED1A: 85 10     STA  ATSALA     ;LATCH SPRITE A
ED1C: 85 11     STA  ATSBLA     ;B 9 PIXLES LATER
ED1E: 85 02     STA  ATWAIT
ED20: 85 2A     STA  ATMVIN
                                ;
          * ENTRY FOR NO REPOS-->
          ********************************
          SCORNP
ED22: A9 07     LDA  #7
ED24: 85 EF     STA  TEMP1      ;LINE COUNT
          * ACTUAL SPRITE PAINTING->
          SC4
ED26: A4 EF     LDY  TEMP1
ED28: B1 F2     LDA  (PD100K),Y
ED2A: 85 1B     STA  ATADAT
ED2C: 85 02     STA  ATWAIT
ED2E: B1 F4     LDA  (PD10K),Y  ;GET 10K DATA
ED30: 85 1C     STA  ATBDAT
ED32: B1 F6     LDA  (PD1K),Y   ;GET 1K DATA
ED34: 85 1B     STA  ATADAT     ;10K SEEN NOW
ED36: B1 F8     LDA  (PD100),Y  ;GET 100'S DATA
ED38: 85 F0     STA  TEMP2      ;SV IT.
ED3A: B1 FA     LDA  (PD10),Y   ;GET 10'S DATA
ED3C: AA        TAX             ;SV IT.
ED3D: B1 FC     LDA  (PD1),Y    ;1'S DATA
ED3F: A8        TAY             ;SAVE IT FOR TIME CRITICAL
ED40: A5 F0     LDA  TEMP2      ;GET 100'S DATA
ED42: 85 1C     STA  ATBDAT     ;1K SEEN NOW.
ED44: 86 1B     STX  ATADAT     ;100 SEEN NOW
ED46: 84 1C     STY  ATBDAT     ;10 SEEN NOW
ED48: 84 1B     STY  ATADAT     ;DUMMY WRITE, 1 SEEN NOW
ED4A: C6 EF     DEC  TEMP1      ;LINE COUNT
ED4C: 10 D8     BPL  SC4        ;LOOPTILL DONE
          *
          *RESET DATA/CONTROL REGS
ED4E: A9 00     LDA  #0
```

```
ED4E: A9 00                    LDA  #0
ED50: 85 1B                    STA  ATADAT
ED52: 85 1C                    STA  ATBDAT
ED54: 85 2B                    STA  ATREMV
ED56: 60                       RTS
                                                ;
              ******************************
              *  SPRITE/MISSILE POSITIONING  *
              *        W/O MVIN             *
              ******************************
              POS
ED57: 85 02                    STA  ATWAIT
ED59: 95 20                    STA  ATSAIN,X    ;FINE INCR.
ED5B: 29 0F                    AND  #$0F
ED5D: A8                       TAY
ED5E: A5 85                    LDA  FRAMEL
ED60: A5 85                    LDA  FRAMEL
ED62: A5 85                    LDA  FRAMEL
ED64: EA                       NOP
ED65: 88      POS10            DEY
ED66: 10 FD                    BPL  POS10
ED68: 95 10                    STA  ATSALA,X    ;LATCH SPRITE.
ED6A: 60                       RTS
              *
```

```
                              PUT  ROC.ADDRESS TABLES
                  */ROC.ADDRESSES - LASTED 12.21.83
                  *
                  * LOW BYTE ADDRESSES FOR WORDS-->
                  ******************************
                  SCORTB
                  DGTBL
ED6B: 57                   DFB  <ZERO
ED6C: 5F                   DFB  <ONE
ED6D: 67                   DFB  <TWO
ED6E: 6F                   DFB  <THREE
ED6F: 77                   DFB  <FOUR
ED70: 7F                   DFB  <FIVE
ED71: 87                   DFB  <SIX
ED72: 8F                   DFB  <SEVEN
ED73: 97                   DFB  <EIGHT
ED74: 9F                   DFB  <NINE
                                              ;
                  * WORD "C.1983 COLECO"
                  *------------------------------------
                  COLE83
ED75: B8                   DFB  <COPR1
ED76: C0                   DFB  <COPR2
ED77: C8                   DFB  <COPR3
                                              ;
                  * WORD "COLECO"
                  *------------------------------------
ED78: 90          COLECO   DFB  <COLE1
ED79: 98                   DFB  <COLE2
ED7A: 90                   DFB  <COLE3
                                              ;
                  *  NULL WORD
                  *------------------------------------
                  NULLTB
ED7B: 88                   DFB  <NULL
ED7C: 88                   DFB  <NULL
ED7D: 88                   DFB  <NULL
ED7E: 88                   DFB  <NULL
ED7F: 88                   DFB  <NULL
ED80: 88                   DFB  <NULL
                                              ;
                  * WORD "C.1983 KONAMI"
                  *------------------------------------
                  KONAM1
ED81: B8                   DFB  <COPR1
ED82: C0                   DFB  <COPR2
ED83: C8                   DFB  <COPR3
ED84: A0                   DFB  <KONAM1
ED85: A8                   DFB  <KONAM2
ED86: B0                   DFB  <KONAM3
                                              ;
                  * WORD "PRESENTS"
                  *------------------------------------
                  PRESNT
ED87: 28                   DFB  <PRES1
ED88: 30                   DFB  <PRES2
ED89: 38                   DFB  <PRES3
ED8A: 40                   DFB  <PRES4
ED8B: 48                   DFB  <PRES5
ED8C: 50                   DFB  <PRES6
                                              ;
                  * WORD "ROC N' ROPE"
                  *------------------------------------
                  RNROPE
ED8D: 58                   DFB  <RNR1
```

```
ED8E: 60                    DFB  <RNR2
ED8F: 68                    DFB  <RNR3
ED90: 70                    DFB  <RNR4
ED91: 78                    DFB  <RNR5
ED92: 80                    DFB  <RNR6

              * WORD "BONUS"
              *-------------------------------------
              BONUS
ED93: A7                    DFB  <BLANK
ED94: AE                    DFB  <BON1
ED95: B6                    DFB  <BON2
ED96: BE                    DFB  <BON3
ED97: C6                    DFB  <BON4
ED98: A7                    DFB  <BLANK

              * WORD "STAGE"
              *-------------------------------------
              STAGE
ED99: 08                    DFB  <LS
ED9A: 18                    DFB  <LT
ED9B: 20                    DFB  <LA
ED9C: 10                    DFB  <LG
ED9D: 00                    DFB  <LE
ED9E: 88                    DFB  <NULL
```

```
                  ******************************
                  *   IMAGE PTRS (LO)          *
                  ******************************
                  DINOTB
                                                :WALKING ANIMATION-->
ED9F: 00                    DFB   <DINO1
EDA0: 1B                    DFB   <DINO2
EDA1: 36                    DFB   <DINO3
EDA2: 51                    DFB   <DINO4
                                                :DINO STUNNED F/LIGHT->
EDA3: 6C                    DFB   <DINO5
EDA4: 87                    DFB   <DINO6
EDA5: 6C                    DFB   <DINO7
EDA6: A2                    DFB   <DINO8
                                                :DINO CLIMBING CLIFF->
                  *DFB <DINO9
                  *DFB <DINOX
                  *DFB <DINO9
                  *DFB <DINOX
                                                :CAVEMAN WALKING/JUMPING->
EDA7: 00                    DFB   <CAVE1
EDA8: 00                    DFB   <CAVE2
EDA9: 1B                    DFB   <CAVE3
EDAA: 36                    DFB   <CAVE4
                                                :CAVEMAN STUNNED F/LIGHT->
EDAB: 51                    DFB   <CAVE5
EDAC: 6C                    DFB   <CAVE6
EDAD: 51                    DFB   <CAVE7
EDAE: 87                    DFB   <CAVE8
                                                :CAVEMAN CLIMBING CLIFF->
EDAF: A2                    DFB   <CAVE9
EDB0: BD                    DFB   <CAVEX
EDB1: A2                    DFB   <CAVE9
EDB2: BD                    DFB   <CAVEX
                                                ;
                  ******************************
                  * IMAGE PTRS (HI)            *
                  ******************************
                  DINOTBHI
                                                :DINO WALK->
EDB3: F7                    DFB   >DINO1
EDB4: F7                    DFB   >DINO2
EDB5: F7                    DFB   >DINO3
EDB6: F7                    DFB   >DINO4
                                                :DINO STUNNED->
EDB7: F7                    DFB   >DINO5
EDB8: F7                    DFB   >DINO6
EDB9: F7                    DFB   >DINO7
EDBA: F7                    DFB   >DINO8
                                                ;
                  *DFB >DINO9
                  *DFB >DINOX
                  *DFB >DINO9
                  *DFB >DINOX
                                                :CAVE WALK->
EDBB: F8                    DFB   >CAVE1
EDBC: F8                    DFB   >CAVE2
EDBD: F8                    DFB   >CAVE3
EDBE: F8                    DFB   >CAVE4
                                                :CAVE STUNNED->
EDBF: F8                    DFB   >CAVE5
EDC0: F8                    DFB   >CAVE6
EDC1: F8                    DFB   >CAVE7
EDC2: F8                    DFB   >CAVE8
```

PAG

```
EDC3: F8                DFB  >CAVE9
EDC4: F8                DFB  >CAVEX
EDC5: F8                DFB  >CAVE9
EDC6: F8                DFB  >CAVEY

          EXPIMG
EDC7: 00                DFB  <EXP1
EDC8: 1B                DFB  <EXP2
EDC9: 36                DFB  <EXP3
EDCA: 69                DFB  <EXP4
EDCB: D6                DFB  <EXP5
                                        ;
          ELEVIMG
EDCC: AA                DFB  <ELEV1
EDCD: AC                DFB  <ELEV2
EDCE: AE                DFB  <ELEV3
EDCF: B0                DFB  <ELEV4
EDD0: B2                DFB  <ELEV5
EDD1: B4                DFB  <ELEV6
EDD2: B6                DFB  <ELEV7
EDD3: B8                DFB  <ELEV8
EDD4: AA                DFB  <ELEV1
EDD5: AC                DFB  <ELEV2
EDD6: AE                DFB  <ELEV3
EDD7: B0                DFB  <ELEV4
EDD8: B2                DFB  <ELEV5
EDD9: B4                DFB  <ELEV6
          WATERIMG
EDDA: B0                DFB  <WATER1
EDDB: B2                DFB  <WATER2
EDDC: B4                DFB  <WATER3
EDDD: B6                DFB  <WATER4
EDDE: B0                DFB  <WATER5
EDDF: B2                DFB  <WATER6
EDE0: B4                DFB  <WATER7
EDE1: B6                DFB  <WATER8
                                        ;
                                        ;
          * LO ADDR FOR POS RTNS DURING PIC
          ********************************
          POSRTN
EDE2: 0F                DFB  <LAT1-1
EDE3: 30                DFB  <LAT2-1
EDE4: 37                DFB  <LAT3-1
EDE5: 58                DFB  <LAT4-1
EDE6: 66                DFB  <LAT5-1
EDE7: 86                DFB  <LAT6-1
EDE8: A1                DFB  <LAT7-1
EDE9: BA                DFB  <LAT8-1
                                        ;
```

PA6

```
                         *******************************
                         *  LETTER IMAGE TABLES-->      *
                         *******************************
                                   OBJ  BEGOBJ+$E00
                                   ORG  BEGORG+$E00
                                   PUT  ROC.LETTERS
                         */ROC.LETTERS - LASTED 12.22.83
                         *******************************

                         *  MESSAGES  DISPLAYED-->
                         *-------------------------------
                         * 1.    COLECO
                         *       PRESENTS
                         *       ROC 'N ROPE
                         *       C 1983 KONAMI
                         *       C 1983 COLECO
                         *
                         *
                         * 2.    STAGE
                         *         X
                         *
                         *******************************
                         DATA2
                         LETTRS
                         * LETTERS FOR WORD "STAGE"      *
                         *-------------------------------
                         * LETTER "E"
EE00: 00 3F 20
EE03: 20 3C 20
EE06: 20 3F              LE        DFB  0,$3F,$20,$20,$3C,$20,$20,$3F
                         * LETTER "C"
                         *LC DFB 0,$3F,$20,$20,$20,$20,$20,$3F
                         * LETTER "L"
                         *LL DFB 0,$3F,$20,$20,$20,$20,$20,$20
                         * LETTER "O"
                         *LO DFB 0,$3F,$21,$21,$21,$21,$21,$3F
                         * LETTER "S"
                         LS
EE08: 00 3E 02
EE0B: 02 02 3E
EE0E: 20 3E                        DFB  0,$3E,$02,$02,$02,$3E,$20,$3E
                         * LETTER "G"
                         LG
EE10: 00 7C 84
EE13: 8E 80 80
EE16: 84 7C                        DFB  0,$7C,$84,$8E,$80,$80,$84,$7C
                         *LETTER "V"
                         *LV
                         *DFB 0,$0C,$0C,$12,$12,$21,$21,$21
                         * LETTER R
                         *LR
                         * DFB 0,$43,$46,$4C,$7E,$41,$41,$7E
                         * LETTER T
                         LT
EE18: 00 08 08
EE1B: 08 08 08
EE1E: 08 7F                        DFB  0,$08,$08,$08,$08,$08,$08,$7F
                         * LETTER A
                         LA
EE20: 00 44 44
EE23: 44 7C 44
EE26: 28 10                        DFB  0,$44,$44,$44,$7C,$44,$28,$10
                                                   ;
                         * LETTER "M"
                         *LM
```

```
                   * DFB 0,$31,$41,$41,$49,$55,$63,$41
                   * LETTERS FOR THE WORD "PRESENTS"
                   ******************************
                   PRES1
EE28: 00 84 85
EE2B: 86 F7 94
EE2E: 94 F7                  DFB  0,$84,$85,$86,$F7,$94,$94,$F7
                   PRES2
EE30: 00 BD 20
EE33: 20 B9 A1
EE36: A1 BD                  DFB  0,$BD,$20,$20,$B9,$A1,$A1,$BD
                   PRES3
EE38: 00 EF 28
EE3B: 28 EE 08
EE3E: 08 EF                  DFB  0,$EF,$28,$28,$EE,$08,$08,$EF
                   PRES4
EE40: 00 44 4C
EE43: 4C 54 54
EE46: 64 45                  DFB  0,$44,$4C,$4C,$54,$54,$64,$45
                   PRES5
EE48: 00 47 40
EE4B: 40 47 44
EE4E: 44 F7                  DFB  0,$47,$40,$40,$47,$44,$44,$F7
                   PRES6
EE50: 00 C0 40
EE53: 40 C0 00
EE56: 00 C0                  DFB  0,$C0,$40,$40,$C0,$00,$00,$C0

                   * LETTERS FOR "ROC N' ROPE"
                   ******************************
                   RNR1
EE58: 00 97 A4
EE5B: A4 F4 97
EE5E: 90 F0                  DFB  0,$97,$A4,$A4,$F4,$97,$90,$F0
                   RNR2
EE60: 00 BC A0
EE63: A0 A0 BC
EE66: 00 00                  DFB  0,$BC,$A0,$A0,$A0,$BC,$00,$00
                   RNR3
EE68: 00 11 11
EE6B: 13 15 19
EE6E: 51 91                  DFB  0,$11,$11,$13,$15,$19,$51,$91
                   RNR4
EE70: 00 25 29
EE73: 29 3D 25
EE76: 24 3C                  DFB  0,$25,$29,$29,$3D,$25,$24,$3C
                   RNR5
EE78: 00 E8 28
EE7B: 2F 29 EF
EE7E: 00 00                  DFB  0,$E8,$28,$2F,$29,$EF,$00,$00
                   RNR6
EE80: 00 78 40
EE83: 70 40 78
EE86: 00 00                  DFB  0,$78,$40,$70,$40,$78,$00,$00
                   NULL
EE88: 00 00 00
EE8B: 00 00 00
EE8E: 00 00                  DFB  0,0,0,0,0,0,0,0
                   *
                   * LETTERS FOR WORD "COLECO"
                   *----------------------------
                   COLE1
                   COLE3
EE90: 00 EE 8A
EE93: 8A                     DFB  $00,$EE,$8A,$8A
EE94: 8A EE 00
```

```
EE97: 00                    DFB  $8A,$EE,$00,$00
                                                ;
                     COLE2
EE98: 00 EE 88
EE9B: 8C                    DFB  $00,$EE,$88,$8C
EE9C: 88 8E 00
EE9F: 00                    DFB  $88,$8E,$00,$00
                     *
                     * LETTERS FOR WORD "KONAMI"
                     *-------------------------------
                     KONAM1
EEA0: 00 AE AA
EEA3: CA                    DFB  $00,$AE,$AA,$CA
EEA4: AA AE 00
EEA7: 00                    DFB  $AA,$AE,$00,$00
                     KONAM2
EEA8: 00 95 B5
EEAB: D7                    DFB  $00,$95,$B5,$D7
EEAC: 95 92 00
EEAF: 00                    DFB  $95,$92,$00,$00
                     KONAM3
EEB0: 00 4A 4A
EEB3: 4A                    DFB  $00,$4A,$4A,$4A
EEB4: 7A 4A 00
EEB7: 00                    DFB  $7A,$4A,$00,$00
                                                ;
                     *
                     * LETTERS FOR WORD "C.1983"
                     *-------------------------------
                     COPR1
EEB8: 00 FD 85
EEBB: B5                    DFB  $00,$FD,$85,$B5
EEBC: A5 B5 84
EEBF: FC                    DFB  $A5,$B5,$84,$FC
                     COPR2
EEC0: 00 17 15
EEC3: 77                    DFB  $00,$17,$15,$77
EEC4: 55 77 00
EEC7: 00                    DFB  $55,$77,$00,$00
                     COPR3
EEC8: 00 70 10
EECB: 30                    DFB  $00,$70,$10,$30
EECC: 10 70 00
EECF: 00                    DFB  $10,$70,$00,$00
                                                ;
```

```
                    ********************************
                    *      DIGIT IMAGE TABLES->    *
                    ********************************
                               OBJ  BEGOBJ+$ED0
                               ORG  BEGORG+$ED0
                               PUT  POSITION.TABLE
                    */ POS VALUES  LASTED:12/11/83
                    ********************************
                    *  TABLE OF VALUES FOR POSITIONING
                    *  FROM FR1 (LEFT) TO FR1 (RIGHT).
                    * HI NIBBLE = INCREMENT
                    * LO NIBBLE = COUNTDOWN DELAY BEFORE LATCH.
                    ********************************
                    POSTBL
                                          ;
                    * POSITIONS 0 TO 9-->
                    ********************************
EED0: 70 60 50
EED3: 40 30                    DFB  $70,$60,$50,$40,$30
EED5: 20 10 00
EED8: F0 E0                    DFB  $20,$10,$00,$F0,$E0
                                          ;
                    * POSITIONS 10 TO 19-->
                    ********************************
EEDA: D0 C0 B0
EEDD: A0 90                    DFB  $D0,$C0,$B0,$A0,$90
EEDF: 71 61 51
EEE2: 41 31                    DFB  $71,$61,$51,$41,$31
                                          ;
                    * POSITIONS 20 TO 29--->
                    ********************************
EEE4: 21 11 01
EEE7: F1 E1                    DFB  $21,$11,$01,$F1,$E1
EEE9: D1 C1 B1
EEEC: A1 91                    DFB  $D1,$C1,$B1,$A1,$91
                                          ;
                    * POSITIONS 30 TO 39--->
                    ********************************
EEEE: 72 62 52
EEF1: 42 32                    DFB  $72,$62,$52,$42,$32
EEF3: 22 12 02
EEF6: F2 E2                    DFB  $22,$12,$02,$F2,$E2
                                          ;
                    * POSITIONS 40 TO 49--->
                    ********************************
EEF8: D2 C2 B2
EEFB: A2 92                    DFB  $D2,$C2,$B2,$A2,$92
EEFD: 73 63 53
EF00: 43 33                    DFB  $73,$63,$53,$43,$33
                                          ;
                    * POSITIONS 50 TO 59-->
                    ********************************
EF02: 23 13 03
EF05: F3 E3                    DFB  $23,$13,$03,$F3,$E3
EF07: D3 C3 B3
EF0A: A3 93                    DFB  $D3,$C3,$B3,$A3,$93
                                          ;
                    * POSITIONS 60 TO 69-->
                    ********************************
EF0C: 74 64 54
EF0F: 44 34                    DFB  $74,$64,$54,$44,$34
EF11: 24 14 04
EF14: F4 E4                    DFB  $24,$14,$04,$F4,$E4
                                          ;
                    * POSITIONS 70 TO 79-->
```

```
                     *********************************
EF16: D4 C4 B4
EF19: A4 94                   DFB  $D4,$C4,$B4,$A4,$94
EF1B: 75 65 55
EF1E: 45 35                   DFB  $75,$65,$55,$45,$35
                                               ;
                     * POSITIONS 80 TO 89-->
                     *********************************
EF20: 25 15 05
EF23: F5 E5                   DFB  $25,$15,$05,$F5,$E5
EF25: D5 C5 B5
EF28: A5 95                   DFB  $D5,$C5,$B5,$A5,$95
                                               ;
                     * POSITIONS 90 TO 99-->
                     *********************************
EF2A: 76 66 56
EF2D: 46 36                   DFB  $76,$66,$56,$46,$36
EF2F: 26 16 06
EF32: F6 E6                   DFB  $26,$16,$06,$F6,$E6
                                               ;
                     * POSITIONS 100 TO 109-->
                     *********************************
EF34: D6 C6 B6
EF37: A6 96                   DFB  $D6,$C6,$B6,$A6,$96
EF39: 77 67 57
EF3C: 47 37                   DFB  $77,$67,$57,$47,$37
                                               ;
                     * POSITIONS 110 TO 119-->
                     *********************************
EF3E: 27 17 07
EF41: F7 E7                   DFB  $27,$17,$07,$F7,$E7
EF43: D7 C7 B7
EF46: A7 97                   DFB  $D7,$C7,$B7,$A7,$97
                                               ;
                     * POSITIONS 120 TO 129-->
                     *********************************
EF48: 78 68 58
EF4B: 48 38                   DFB  $78,$68,$58,$48,$38
EF4D: 28 18 08
EF50: F8 E8                   DFB  $28,$18,$08,$F8,$E8
                                               ;
                     * POSITIONS 130 TO 139-->
                     *********************************
EF52: D8 C8 B8
EF55: A8 98                   DFB  $D8,$C8,$B8,$A8,$98
```

```
 1 A                  UT  DIGITS2
              */DIGITS2.DATA    LISTED 12/11/83
              *.....DIGITS.....
              DATA1
              DIGITS
              *
              ZERO
EF57: 00 3C 66
EF5A: 66 66 66
EF5D: 66 3C                   DFB  $00,$3C,$66,$66,$66,$66,$66,$3C
              ONE
EF5F: 00 7E 18
EF62: 18 18 38
EF65: 18 08                   DFB  $00,$7E,$18,$18,$18,$38,$18,$08
              TWO
EF67: 00 7E 62
EF6A: 60 3C 06
EF6D: 46 3C                   DFB  $00,$7E,$62,$60,$3C,$06,$46,$3C
              THREE
EF6F: 00 3C 46
EF72: 06 1C 06
EF75: 46 3C                   DFB  $00,$3C,$46,$06,$1C,$06,$46,$3C
              FOUR
EF77: 00 0C 0C
EF7A: 7E 4C 2C
EF7D: 1C 0C                   DFB  $00,$0C,$0C,$7E,$4C,$2C,$1C,$0C
              FIVE
EF7F: 00 3C 46
EF82: 06 7C 60
EF85: 60 7E                   DFB  $00,$3C,$46,$06,$7C,$60,$60,$7E
              SIX
EF87: 00 3C 66
EF8A: 66 7C 60
EF8D: 62 3C                   DFB  $00,$3C,$66,$66,$7C,$60,$62,$3C
              SEVEN
EF8F: 00 30 30
EF92: 18 0C 06
EF95: 42 7E                   DFB  $00,$30,$30,$18,$0C,$06,$42,$7E
              EIGHT
EF97: 00 3C 66
EF9A: 66 3C 66
EF9D: 66 3C                   DFB  $00,$3C,$66,$66,$3C,$66,$66,$3C
              NINE
EF9F: 00 3C 46
EFA2: 06 3E 66
EFA5: 66 3C                   DFB  $00,$3C,$46,$06,$3E,$66,$66,$3C
EFA7: 00 00 00
EFAA: 00 00 00
EFAD: 00      BLANK           DFB  0,0,0,0,0,0,0
              *

              * LETTERS FOR WORD "BONUS"
              ********************************
              BON1
EFAE: 00 EE 69
EFB1: 29                      DFB  0,$EE,$69,$29
EFB2: 0E 09 09
EFB5: 0E                      DFB  $0E,$09,$09,$0E
              BON2
EFB6: 00 32 4A
EFB9: 4A                      DFB  0,$32,$4A,$4A
EFBA: 4B 4A 4A
EFBD: 32                      DFB  $4B,$4A,$4A,$32
              BON3
EFBE: 00 4C 52
```

```
EFC1: D2          >38          DFB  0,$40,$52,$D2
EFC2: 52 52 52
EFC5: 52          >39          DFB  $52,$52,$52,$52
                  >40    BON4
EFC6: 00 E7 16
EFC9: 14          >41          DFB  0,$E7,$16,$14
EFCA: 60 80 80
EFCD: 70          >42          DFB  $60,$80,$80,$70
                  >43               ;
```

```
                  ****************************************
                  *          RESET VECTOR                *
                  ****************************************
                             OBJ   BEGOBJ+$FFC
                             ORG   BEGORG+$FFC
EFFC: 12 E0                  DA    PWRUP
                  END
```

--End assembly--

2 bytes

Errors: 0

Symbol table - alphabetical order:

ACOL	=$C1	ADAT	=$CF	ADATHI	=$C6	ADATLO	=$CB
ADUR	=$92	AGAIN	=$E4FC	AIDX	=$90	AN44	=$E94A
AN80	=$E953	AN99	=$E955	ANIM1	=$E2B7	ANIM2	=$E2C1
ANIM3	=$E2C4	ANIM99	=$E2D1	ANIMEXP	=$E93A	AORD	=$BC
ATACOL	=$06	ATACTL	=$04	ATADAT	=$1B	ATADIV	=$17
ATAORD	=$0B	ATASEL	=$25	ATAVOL	=$19	ATAWAV	=$15
ATBCOL	=$07	ATBCTL	=$05	ATBDAT	=$1C	ATBLNK	=$C1
ATBORD	=$0C	ATBSEL	=$26	ATFCTL	=$0A	ATJBA	=$3C
ATMVIN	=$2A	ATREMV	=$2B	ATSAIN	=$20	ATSALA	=$10
ATSBIN	=$21	ATSBLA	=$11	ATSCOL	=$09	ATSYNC	=$00
ATTACH	=$E432	ATWAIT	=$02	BADMOV	=$E972	? BAND	=$EF
BCOL	=$DB	BCOLLO	=$D7	BD5	=$E15C	BD55	=$E16A
? BD6	=$E194	BDAT	=$D5	BDATLO	=$D1	BDUR	=$93
BEGOBJ	=$8004	BEGORG	=$E000	BIDX	=$91	BIRD1	=$EC00
BIRD2	=$EC16	BIRDON	=$E44D	BIRDPOS	=$B8	BLACK	=$00
BLANK	=$EFA7	? BLUE	=$9A	BOID	=$E6E7	BOID2	=$E6FE
BOID4	=$E708	BON1	=$EFAE	BON2	=$EFB6	BON3	=$EFBE
BON4	=$EFC6	BONUS	=$ED93	BONUSH	=$8F	BONUSL	=$8E
BOT1	=$E697	BOTTIM	=$94	BOTVI	=$E024	BRD99	=$E45B
BRDCOL	=$EC2D	? BROWN	=$F6	? BTIME	=$87	BUTDN	=$E147
? BUTTON	=$E12D	CAVE1	=$F800	CAVE2	=$F800	CAVE3	=$F81B
CAVE4	=$F836	CAVE5	=$F851	CAVE6	=$F86C	CAVE7	=$F851
CAVE8	=$F887	CAVE9	=$F8A2	CAVEX	=$F8BD	CHGDIR	=$E29E
CLIFF	=$E631	CLIFFHIT	=$EB1F	CLRAM	=$E017	? CLTEST	=$E11B
CNTDWN	=$E46D	COLE1	=$EE90	COLE2	=$EE98	COLE3	=$EE90
COLE83	=$ED75	? COLECO	=$ED78	COLEXP	=$E559	COPR1	=$EEB8
COPR2	=$EEC0	COPR3	=$EEC8	DATA1	=$EF57	DATA2	=$EE00
DECTIM	=$E387	DGTBL	=$ED6B	DIGITS	=$EF57	DINDAT	=$A2
DINDIR	=$A7	DINLN	=$98	DINLTR	=$E282	DINO1	=$F700
DINO2	=$F71B	DINO3	=$F736	DINO4	=$F751	DINO5	=$F76C
DINO6	=$F787	DINO7	=$F76C	DINO8	=$F7A2	? DINO9	=$F7BE
DINOST	=$A7	DINOTB	=$ED9F	DINOTBHI	=$EDB3	? DINOX	=$F7D9
DINPOS	=$9D	DPAUSE	=$E3E4	DPAUSEH	=$E3E9	DURTBL	=$E93D
EGG1	=$F6D4	EGGON	=$E4CF	EGGPOS	=$B1	EGGTBL	=$E937
EIGHT	=$EF97	ELEV1	=$F6AA	ELEV2	=$F6AC	ELEV3	=$F6AE
ELEV4	=$F6B0	ELEV5	=$F6B2	ELEV6	=$F6B4	ELEV7	=$F6B6
ELEV8	=$F6B8	ELEVDAT	=$B4	ELEVIMG	=$EDCC	ELEVSPD	=$E3E1
? ELEVST	=$B3	ELV40	=$E3D3	ELV80	=$E3DC	ELV99	=$E3DE
END	=$EFFE	ENDIT	=$E2D1	EPOS	=$E60D	EX1	=$E934
EXON	=$E979	EXP1	=$F900	EXP2	=$F91B	EXP3	=$F936
EXP4	=$F969	EXP5	=$F9D6	EXP99	=$E571	EXPCOL	=$F61[illegible]
EXPDAT	=$96	EXPIMG	=$EDC7	EXPLN	=$94	EXPON	=$E5[illegible]
EXPPOS	=$95	EXPSTAT	=$97	FACEL	=$E344	FALLIN	=$E3[illegible]
FIVE	=$EF7F	FLIGHT	=$F99E	FM	=$E1	FMLO	=$DD
FOUR	=$EF77	FRAMEH	=$86	FRAMEL	=$85	FRNE	=$E02F
? FVBULL	=$E80B	? FVCANN	=$E80F	? FVEXP1	=$E815	? FVMGUN	=$E81[illegible]

```
 ? FVRUN    =$E827   ? FVTANK   =$E831     FVTBL    =$E7B0   ? GAME     =$80
   GBAND    =$E105     GOTIT    =$E504   ? GOVER    =$03     ? GREEN    =$D4
   HAVDINO  =$E4A4     HAVWHO   =$E319     HBAND    =$E10E     HESHIT   =$E33?
 ? HIGND    =$E8C7   ? HITCL    =$EB48     HITTBL   =$EB4C     HMAX     =$7F
   HMIN     =$06       HOFF     =$E064     HOLD10   =$E6A1     IDDAT    =$EB15
   IDDIR    =$EB10     IDINO    =$E906     IDLN     =$EB1A   ? IDPOS    =$EB0?
   IGAME    =$E8E0     INBAND   =$E533     INV5     =$E9AC   ? INVENT   =$E9AA
 ? INVTBL   =$E900     IROUND   =$E8F4     JOY77    =$E0F5     JOY80    =$E101
   JOY88    =$E12A     JOY99    =$E12D     JOYADN   =$20       JOYALT   =$40
   JOYART   =$80     ? JOYAUP   =$10       JOYDAT   =$0280   ? JOYRD    =$E0?B
   KONAM1   =$EEA0     KONAM2   =$EEA8     KONAM3   =$EEB0     KONAMI   =$ED81
   LA       =$EE20     LAT1     =$FF10     LAT2     =$FF31     LAT3     =$FF38
   LAT4     =$FF59     LAT5     =$FF67     LAT6     =$FF87     LAT7     =$FFA2
   LAT8     =$FFBB   ? LBLUE    =$94     ? LBROWN   =$18       LE       =$EE00
 ? LETTRS   =$EE00     LEV0     =$EB8F     LEV1     =$EB92     LEV2     =$EB95
   LEV3     =$EB96     LEV4     =$EB9B     LEV5     =$EB9E     LEVELC   =$EBA1
   LEVTBL   =$EB8F     LG       =$EE10     LITEOFF  =$E518     LITEON   =$E510
   LITON    =$E55B     LOFF     =$E389   ? LOSND    =$E8C3     LS       =$EE08
   LSIDE    =$E4CB     LT       =$EE18     LTOFF    =$E542     LTOR     =$E5??
   MA       =$E7       MALO     =$E3       MB       =$ED       MBLO     =$E9
   MID1     =$E66F     MISC     =$F600     MISSCL   =$EB4A     MODE     =$81
   MOV99    =$E2AF     MOVE1    =$E235     MOVEM    =$E240     MOVEXP   =$E756
   MOVLTR   =$E297     MOVRT    =$E26C     MOVRTL   =$E278     MV1      =$E251
   MVDOWN   =$E0B8     MVUP     =$E091     NDOWN    =$E0C5     NEXTMV   =$E299
   NFALL    =$E3B5     NINE     =$EF9F     NJOY     =$E07A     NOADD    =$E47C
   NOBUT    =$E1B6     NOBUTD   =$E1B2   ? NOEGG    =$E4D7     NOELEV   =$E4F8
   NONUM    =$E695     NORES    =$E1C2     NOROPE   =$E98E     NOSEL    =$E1F0
   NOSEL2   =$E1FE     NOSONG   =$E22C     NOSTUN   =$E36E     NOTHIT   =$E352
   NOTTL    =$E214     NRITE    =$E0E1     NUGAM    =$E1DF     NULL     =$EE88
   NULLM    =$F6DC     NULLTB   =$ED7B     NULLX    =$F97A     NUP      =$E0A4
   NXTEGG   =$E4D4     ONE      =$EF5F   ? ONLTR    =$E973     ONP5     =$EB02
   ONPLAT   =$EB00   ? ONRTL    =$E983   ? ORANGE   =$28       PADLO    =$E8CE
   PADRND1  =$E8D1     PADRND2  =$E8D6     PADRND3  =$E8DB     PAINT    =$FD00
   PD1      =$FC       PD10     =$FA       PD100    =$F8       PD100K   =$F2
   PD10K    =$F4       PD1K     =$F6       PEG99    =$E60F     PLAY     =$01
   PLAY2    =$E053     PLAYER   =$80       PNTBON   =$E712     POS      =$ED57
   POS10    =$ED65     POSADR   =$E8D1     POSRTN   =$EDE2     POSTBL   =$EED0
   PRES1    =$EE28     PRES2    =$EE30     PRES3    =$EE38     PRES4    =$EE40
   PRES5    =$EE48     PRES6    =$EE50   ? PRESNT   =$ED87     PROCK    =$E5F0
   PSCORE   =$E6B3     PT99     =$E2F9     PURPLE   =$68       PWRTIM   =$B2
   PWRUP    =$E012     READIT   =$E07D   ? RED      =$26       REDTBL   =$F647
   RESUM    =$05       RLN80    =$E58E     RLN90    =$E596     RLN99    =$E5A5
   RM15     =$E412     RM99     =$E438     RMDR     =$E1A0     RMDR5    =$E1A8
   RNR1     =$EE58     RNR2     =$EE60     RNR3     =$EE68     RNR4     =$EE70
   RNR5     =$EE78     RNR6     =$EE80     RNROPE   =$ED8D   ? ROCKLN   =$BA
 ? ROCKPOS  =$BB       ROPE1    =$F66D     ROPE2    =$F665     ROPELN   =$B5
   ROPEMON  =$E3EE     ROPEST   =$B7       ROPPOS   =$B6       ROUND1   =$82
   RSIDE    =$E4C5     RTRY     =$EB36     S1LV0    =$EB4C     S1LV1    =$EB4C
   S1LV2    =$EB51     S1LV3    =$EB51     S1LV4    =$EB56     S1LV5    =$EB5D
   S2LV0    =$EB62     S2LV1    =$EB67     S2LV2    =$EB6C     S2LV3    =$EB71
   S2LV4    =$EB76     S2LV5    =$EB5D     S3LV0    =$EB7D     S3LV1    =$EB7D
   S3LV2    =$EB82     S3LV3    =$EB87     S3LV4    =$EB87     S3LV5    =$EB8C
   SAIN     =$BC     ? SAPOS0   =$FE     ? SAPOS1   =$FC     ? SAPOS2   =$FA
 ? SAPOS3   =$F8       SAPOS4   =$F6       SC4      =$ED26   ? SCOR1H   =$8C
 ? SCOR1L   =$88     ? SCOR1M   =$8A       SCORE    =$ED00     SCORNF   =$ED22
   SCORTB   =$ED6B     SCREEN   =$E60F   ? SELECT   =$04       SET5     =$E75D
   SETADR   =$E757     SETR     =$E47E     SETUP    =$E643     SEVEN    =$EF8F
   SIX      =$EF87     SND1     =$E780     SND25    =$E797     SND80    =$E787
   SND85    =$E7B9   ? SND99    =$E7BC     SON99    =$E8CD   ? SONG1A   =$E7BD
 ? SONG1B   =$E7DF   ? SONG2A   =$E7E6     SOUND    =$E77E     SPR6     =$E990
   SPRIT6   =$E990     STAGE    =$ED99     STGSCR   =$E634     STUN99   =$E371
   STUND    =$E35A     SVRPOS   =$E172   ? SWICOL   =$03       SWIRES   =$01
   SWISEL   =$02     ? SWIT     =$E1B6     SWITCH   =$0282   ? TAN      =$FC
   TEMP1    =$EF       TEMP11   =$E8       TEMP12   =$E9       TEMP13   =$EA
   TEMP2    =$F0       TEMP3    =$F1     ? TEMP4    =$F4     ? TEMP5    =$F5
 ? TEMP6    =$F6     ? TEMP7    =$F7     ? TEMP8    =$F8     ? TESIST   =$E9
```

```
    THREE    =$EF6F       TIME64   =$0296       TIMER    =$0284       TITLEM   =$02
    TITSCR   =$E63E       TOGO     =$84         TOPL     =$E650       TOPSW    =$E000
    TOPTIM   =$A8         TWO      =$EF67    ?  VINT     =$E2D6       VMAX     =$71
    VMIN     =$00         VOFF     =$E06F       VOLTBL   =$E33E       WATER    =$EADE
    WATER1   =$F680       WATER2   =$F682       WATER3   =$F684       WATER4   =$F686
    WATER5   =$F6B0       WATER6   =$F6B2       WATER7   =$F6B4       WATER8   =$F6B6
    WATERIMG=$EDDA     ?  WDBULL   =$E899    ?  WDCANN   =$E89D    ?  WDEXPL   =$E8A3
 ?  WDMGUN   =$E8AA    ?  WDRUN    =$E8B5       WDSONG1A=$E84B       WDSONG1B=$E863
    WDSONG2A=$E874     ?  WDTANK   =$E8BF       WDTBL    =$E84B    ?  WHITE    =$0E
    WHITETB  =$F600       WHOHIT   =$E310       XFACEL   =$E189       YELLOW   =$1A
    YELOTB   =$F62D       ZERO     =$EF57


Symbol table - numerical order:

    ATSYNC   =$00         BLACK    =$00         VMIN     =$00         ATBLNK   =$01
    SWIRES   =$01         PLAY     =$01         ATWAIT   =$02         SWISEL   =$02
    TITLEM   =$02      ?  GOVER    =$03         ATACTL   =$04      ?  SELECT   =$04
    ATBCTL   =$05         RESUM    =$05         ATACOL   =$06         HMIN     =$06
    ATBCOL   =$07      ?  SWICOL   =$08         ATSCOL   =$09         ATFCTL   =$0A
    ATAORD   =$0B         ATBORD   =$0C      ?  WHITE    =$0E         ATSALA   =$10
 ?  JOYAUP   =$10         ATSBLA   =$11         ATAWAV   =$15         ATADIV   =$17
 ?  LBROWN   =$18         ATAVOL   =$19         YELLOW   =$1A         ATADAT   =$1B
    ATBDAT   =$1C         ATSAIN   =$20         JOYADN   =$20         ATSBIN   =$21
    ATASEL   =$25         ATBSEL   =$26      ?  RED      =$26      ?  ORANGE   =$28
    ATMVIN   =$2A         ATREMV   =$2B         ATJBA    =$3C         JOYALT   =$40
    PURPLE   =$68         VMAX     =$71         HMAX     =$7F         JOYART   =$80
 ?  GAME     =$80         PLAYER   =$80         MODE     =$81         ROUND1   =$82
    TOGO     =$84         FRAMEL   =$85         FRAMEH   =$86      ?  BTIME    =$87
 ?  SCOR1L   =$88      ?  SCOR1M   =$8A      ?  SCOR1H   =$8C         BONUSL   =$8E
    BONUSH   =$8F         AIDX     =$90         BIDX     =$91         ADUR     =$92
    BDUR     =$93         EXPLN    =$94         BOTTIM   =$94      ?  LBLUE    =$94
    EXPPOS   =$95         EXPDAT   =$96         EXPSTAT  =$97         DINLN    =$98
 ?  BLUE     =$9A         DINPOS   =$9D         DINDAT   =$A2         DINOST   =$A7
    DINDIR   =$A7         TOPTIM   =$A8         EGGPOS   =$B1         PWRTIM   =$B2
 ?  ELEVST   =$B3         ELEVDAT  =$B4         ROPELN   =$B5         ROPPOS   =$B6
    ROPEST   =$B7         BIRDPOS  =$B8      ?  TERIST   =$B9      ?  ROCKLN   =$BA
 ?  ROCKPOS  =$BB         AORD     =$BC         SAIN     =$BE         ACOL     =$C1
    ADATHI   =$C6         ADATLO   =$CB         ADAT     =$CF         BDATLO   =$D1
 ?  GREEN    =$D4         BDAT     =$D5         BCOLLO   =$D7         BCOL     =$DB
    FMLO     =$DD         FM       =$E1         MALO     =$E3         MA       =$E7
    TEMP11   =$E8         MBLO     =$E9         TEMP12   =$E9         TEMP13   =$EA
    MB       =$ED      ?  BAND     =$EF         TEMP1    =$EF         TEMP2    =$F0
    TEMP3    =$F1         PD100K   =$F2      ?  TEMP4    =$F4         PD10K    =$F4
 ?  TEMP5    =$F5         SAPOS4   =$F6      ?  TEMP6    =$F6         PD1K     =$F6
 ?  BROWN    =$F6      ?  TEMP7    =$F7      ?  SAPOS3   =$F8      ?  TEMP8    =$F8
    PD100    =$F8      ?  SAPOS2   =$FA         PD10     =$FA      ?  SAPOS1   =$FC
    PD1      =$FC      ?  TAN      =$FC      ?  SAPOS0   =$FE         JOYDAT   =$0280
    SWITCH   =$0282       TIMER    =$0284       TIME64   =$0296       BEGOBJ   =$8004
    BEGORG   =$E000       TOPSW    =$E000       PWRUP    =$E012       CLRAM    =$E017
    BOTVI    =$E024       PRNE     =$E02F    ?  JOYRD    =$E03B       PLAY2    =$E053
    HOFF     =$E064       VOFF     =$E06F       NJOY     =$E07A       READIT   =$E07D
    MVUP     =$E091       NUP      =$E0A4       MVDOWN   =$E0B8       NDOWN    =$E0C5
    NRITE    =$E0E1       JOY77    =$E0F5       JOY80    =$E101       GBAND    =$E105
    HBAND    =$E10E    ?  CLTEST   =$E11B       JOY88    =$E12A       JOY99    =$E12D
 ?  BUTTON   =$E12D       BUTDN    =$E147       BD5      =$E15C       BD55     =$E16A
    XFACEL   =$E189       SVRPOS   =$E192    ?  BD6      =$E194       RMDR     =$E1A4
    RMDRS    =$E1A8       NOBUTD   =$E1B2       NOBUT    =$E1B6    ?  SWIT     =$E1B6
    NORES    =$E1C2       NUGAM    =$E1DF       NOSEL    =$E1F0       NOSEL2   =$E1FE
    NOTTL    =$E214       NOSONG   =$E22C       MOVE1    =$E235       MOVEM    =$E240
    MV1      =$E251       MOVRT    =$E26C       MOVRTL   =$E27B       DINLTR   =$E292
    MOVLTR   =$E297       NEXTMV   =$E299       CHGDIR   =$E29E       MOV99    =$E2A7
    ANIM1    =$E2B7       ANIM2    =$E2C1       ANIM3    =$E2C4       ANIM99   =$E2D1
    ENDIT    =$E2D1    ?  VINT     =$E2D6       PT99     =$E2F9       WHOHIT   =$E310
    HAVWHO   =$E319       HESHIT   =$E335       FACEL    =$E344       NOTHIT   =$E355
    STUND    =$E35A       MOSTUN   =$E36E       STUN99   =$E371       DECTIM   =$E377
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LOFF	=$E387	FALLIN	=$E3A9	NFALL	=$E3B5	ELV40	=$E3D[illegible]
ELV30	=$E3DC	ELV99	=$E3DE	ELEVSPD	=$E3E[illegible]	DFAUSE	=$E3E[illegible]
DFAUSEH	=$E3E9	ROPEMON	=$E3EE	RM15	=$E412	ATTACK	=$E43[illegible]
RM99	=$E438	BIRDON	=$E440	BRD99	=$E453	CNTDWN	=$E46D
NOADD	=$E47C	SETR	=$E47E	HAVDINO	=$E4A4	RSIDE	=$E4C5
LSIDE	=$E4CB	EGGON	=$E4CF	NXTEGG	=$E4D4	? NOEGG	=$E4D7
WATER	=$E4EE	NOELEV	=$E4F8	AGAIN	=$E4FC	GOTIT	=$E504
LITEOFF	=$E518	LITEON	=$E51D	INBAND	=$E533	LTOFF	=$E542
COLEXP	=$E559	LITON	=$E55B	EXP99	=$E571	RLN80	=$E58E
RLN90	=$E596	LTOR	=$E5A0	RLN99	=$E5A5	EXPON	=$E5C9
PROCK	=$E5F0	EPOS	=$E60D	PEG99	=$E60F	SCREEN	=$[illegible]
CLIFF	=$E631	STGSCR	=$E634	TITSCR	=$E63D	SETUP	=$E6[illegible]
TOP1	=$E658	MID1	=$E66F	NONUM	=$E695	BOT1	=$E6[illegible]
HOLD10	=$E6A1	PSCORE	=$E6B3	BOID	=$E6E7	BOID2	=$E6[illegible]
BOID4	=$E708	PNTBON	=$E712	SETADR	=$E757	SETS	=$E75D
SOUND	=$E77E	SND1	=$E780	SND25	=$E797	SND50	=$E7[illegible]
SND85	=$E7B9	? SND99	=$E7BC	FVTBL	=$E7BD	? SONG1A	=$E7[illegible]
? SONG1B	=$E7DF	? SONG2A	=$E7E6	? FVBULL	=$E80B	? FVCANN	=$E80F
? FVEXP1	=$E815	? FVMGUN	=$E81C	? FVRUN	=$E827	? FVTANK	=$E8[illegible]
VOLTBL	=$E835	DURTBL	=$E83D	WDTBL	=$E84B	WDSONG1A	=$E81B
WDSONG1B	=$E86D	WDSONG2A	=$E874	? WDBULL	=$E899	? WDCANN	=$E89D
? WDEXP1	=$E8A3	? WDMGUN	=$E8AA	? WDRUN	=$E8B5	? WDTANK	=$E8BF
? LOSND	=$E8C3	? HISND	=$E8C7	SON99	=$E8CD	PADLO	=$E8CE
POSADR	=$E8D1	PADRND1	=$E8D1	PADRND2	=$E8D6	PADRND3	=$E8[illegible]
IGAME	=$E8E0	IROUND	=$E8F4	IDINO	=$E906	EGGTBL	=$E937
ANIMEXP	=$E93A	AN44	=$E94A	AN80	=$E953	AN99	=$E955
MOVEXP	=$E956	BADMOV	=$E972	? ONLTR	=$E973	EXON	=$E979
? ONRTL	=$E988	NOROPE	=$E98[illegible]	SPRIT6	=$E990	SPR6	=$E99C
? INVENT	=$E9AA	INVS	=$E9AC	EX1	=$E9B4	? INVTBL	=$E9C0
ONPLAT	=$EB00	ONPS	=$EB02	? IDPOS	=$EB0B	IDDIR	=$EB10
IDDAT	=$EB15	IDLN	=$EB1A	CLIFFHIT	=$EB1F	RTRY	=$EB3[illegible]
? HITCL	=$EB48	MISSCL	=$EB4A	HITTBL	=$EB4C	S1LV0	=$EB4C
S1LV1	=$EB4C	S1LV2	=$EB51	S1LV3	=$EB51	S1LV4	=$EB56
S1LV5	=$EB5D	S2LV5	=$EB5D	S2LV0	=$EB62	S2LV1	=$EB67
S2LV2	=$EB6C	S2LV3	=$EB71	S2LV4	=$EB76	S3LV0	=$EB7D
S3LV1	=$EB7D	S3LV2	=$EB82	S3LV3	=$EB87	S3LV4	=$EB87
S3LV5	=$EB8C	LEVTBL	=$EB8F	LEV0	=$EB8F	LEV1	=$EB92
LEV2	=$EB95	LEV3	=$EB98	LEV4	=$EB9B	LEV5	=$EB9E
LEVELO	=$EBA1	BIRD1	=$EC00	BIRD2	=$EC16	BRDCOL	=$EC2D
SCORE	=$ED00	SCORNP	=$ED22	SC4	=$ED26	POS	=$ED57
POS10	=$ED65	SCORTB	=$ED6B	DGTBL	=$ED6B	COLE83	=$ED75
? COLECO	=$ED78	NULLTB	=$ED7B	KONAMI	=$ED81	? PRESNT	=$ED87
RNPOPE	=$ED8D	BONUS	=$ED93	STAGE	=$ED99	DINOTB	=$ED9F
DINOTBHI	=$EDB3	EXPIMG	=$EDC7	ELEVIMG	=$EDCC	WATERIMG	=$EDDA
POSRTN	=$EDE2	DATA2	=$EE00	? LETTRS	=$EE00	LE	=$EE00
LS	=$EE08	LG	=$EE10	LT	=$EE18	LA	=$EE20
PRES1	=$EE28	PRES2	=$EE30	PRES3	=$EE38	PRES4	=$EE40
PRES5	=$EE48	PRES6	=$EE50	RNR1	=$EE58	RNR2	=$EE60
RNR3	=$EE68	RNR4	=$EE70	RNR5	=$EE78	RNR6	=$EE80
NULL	=$EE88	COLE1	=$EE90	COLE3	=$EE90	COLE2	=$EE98
KONAM1	=$EEA0	KONAM2	=$EEA8	KONAM3	=$EEB0	COPR1	=$EEB8
COPR2	=$EEC0	COPR3	=$EEC8	POSTBL	=$EED0	DATA1	=$EF57
DIGITS	=$EF57	ZERO	=$EF57	ONE	=$EF5F	TWO	=$EF67
THREE	=$EF6F	FOUR	=$EF77	FIVE	=$EF7F	SIX	=$EF87
SEVEN	=$EF8F	EIGHT	=$EF97	NINE	=$EF9F	BLANK	=$EFA7
BON1	=$EFAE	BON2	=$EFB6	BON3	=$EFBE	BON4	=$EFC6
END	=$EFFE	WHITETB	=$F600	MISC	=$F600	EXPCOL	=$F61C
YELOTB	=$F62D	REDTBL	=$F649	ROPE2	=$F665	ROPE1	=$F66D
ELEV1	=$F6AA	ELEV2	=$F6AC	ELEV3	=$F6AE	ELEV4	=$F6B0
WATER1	=$F6B0	WATER5	=$F6B0	ELEV5	=$F6B2	WATER2	=$F6B2
WATER6	=$F6B2	ELEV6	=$F6B4	WATER3	=$F6B4	WATER7	=$F6B4
ELEV7	=$F6B6	WATER4	=$F6B6	WATER8	=$F6B6	ELEV8	=$F6B8
EGG1	=$F6D4	NULLM	=$F6DC	DINO1	=$F700	DINO2	=$F71B
DINO3	=$F736	DINO4	=$F751	DINO5	=$F76[illegible]	DINO7	=$F76C
DINO6	=$F787	DINO8	=$F7A2	? DINO9	=$F7BD	? DINOX	=$F7D[illegible]
CAVE1	=$F800	CAVE2	=$F80[illegible]	CAVE3	=$F81B	CAVE4	=$F8[illegible]

CAVE1	=$F800	CAVE2	=$[illegible]	CAVE3	=$F8[illegible]	CAVE4	=$F[illegible]
CAVE5	=$F591	CAVE6	=$F5[illegible]	CAVE7	=$F[illegible]	CAVE8	=$F667
CAVE9	=$F8A2	CAVEX	=$F8BD	EXP1	=$F[illegible]	EXP2	=$F[illegible]B
EXP3	=$F[illegible]36	EXP4	=$F969	NULLX	=$F97A	LOGIM	=$F99E
EXP5	=$F9D6	PAINT	=$FD0C	LAT1	=$FF10	LAT2	=$FF31
LAT3	=$FF38	LAT4	=$FF59	LAT5	=$FF67	LAT6	=$FF87
LAT7	=$FFA2	LAT8	=$FFBB				